

KP-46V15/46V16 KP-53V15/53V16/61V15

RM-Y115

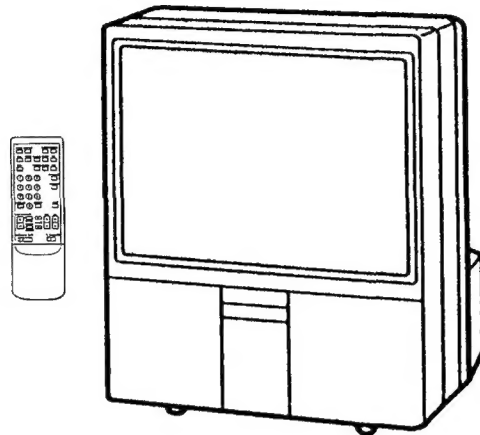
SERVICE MANUAL

US Model

KP-46V15 Chassis No. SCC-F19M-A
KP-46V16 Chassis No. SCC-F19R-A
KP-53V15 Chassis No. SCC-F19N-A
KP-53V16 Chassis No. SCC-F19P-A
KP-61V15 Chassis No. SCC-F19K-A

Canadian Model

KP-46V15 Chassis No. SCC-F23F-A
KP-61V15 Chassis No. SCC-F23D-A



AP CHASSIS



996494401

MODELS OF THE SAME SERIES

KP-46V15/46V16	KP-41EXR96
KP-53V15/53V16/61V15	KPR-41EXR95
KP-46XBR25/53XBR25/61XBR28	KPR-46XBR15/53XBR15

SPECIFICATIONS

Structure	Screen and projector, rear projection type	Projected picture size	46 (KP-46V15/46V16)
Projection system	3 picture tubes, 3 lenses, horizontal in-line system	(in inches, measured diagonally)	53 (KP-53V15/53V16)
Picture tube	7 inch high-brightness monochrome tubes (5.5 raster size), with optical coupling and liquid cooling system	Screen brightness (cd/m ²)	61 (KP-61V15) 1,600 (KP-46V15/46V16) 1,250 (KP-53V15/53V16) 900 (KP-61V15)
Projection lenses	High performance, larger-diameter hybrid lens F 1.0	Television system	American TV standards
Screen material	Plastic lenticular, Plastic fresnel	Channel coverage	VHF: 2-13 UHF: 14-69 CABLE TV: 1-125
		Antenna	75-ohm external antenna terminal for VHF/UHF

- Continued on next page -

COLOR REAR VIDEO PROJECTOR

SONY®



996494401

Input jacks VIDEO IN 1
 S VIDEO IN (4-pin mini DIN)
 Y: 1 Vp-p, 75-ohms unbalanced,
 sync negative
 C: 0.286 Vp-p (Burst signal)
 75-ohms
 Video (phono jacks): 1 Vp-p, 75-ohms
 unbalanced, sync negative
 Audio (phono jacks):
 500 mVrms (100% modulation)
 Impedance: 47 kilo-ohms

VIDEO IN 2 and 3
 Video (phono jacks): 1 Vp-p, 75-ohms
 unbalanced, sync negative
 Audio (phono jacks):
 500 mVrms (100% modulation)
 Impedance: 47 kilo-ohms

Output jacks MONITOR OUT
 S VIDEO MONITOR OUT
 (4-pin mini DIN)
 Y: 1 Vp-p, 75-ohms
 unbalanced, sync negative
 Video (phono jacks): 1Vp-p, 75-ohms
 unbalanced, sync negative
 Audio (phono jacks): 500mVrms
 (100% modulation)
 Impedance: 10 kilo-ohms

AUDIO (VAR) OUT
 (phono jacks)
 More than 900mVrms (100% modulation)
 at the maximum volume setting (variable)
 Impedance: 5kilo-ohms

AUDIO OUT
 (phono jacks)
 900mVrms (100% modulation)
 Impedance: 5kilo-ohms

Speaker
 Two-way coaxial speaker system
 Woofer 130 mm (5 inches) diameter
 Tweeter 35 mm (1.4 inches) diameter
 12W×2

Speaker output
 CENTER SPEAKER input
 16Ω NORM. 30W MAX 50W

Power requirements
 120 V AC, 60 Hz

Power consumption
 310W (max)
 7W (standby mode)

Dimensions (w/h/d)
 1,029×1,287×543 mm
 (40⁵/₈×50³/₄×21¹/₂ inches)
 (KP-46V15/46V16)
 1,164×1,336×651 mm
 (45⁷/₈×52⁵/₈×25³/₄ inches)
 (KP-53V15/53V16)
 1,337×1,490×780 mm
 (52⁵/₈×58⁵/₈×30¹¹/₁₆ inches)
 (KP-61V15)

Weight
 90 kg (198 lb 7 oz) (KP-46V15/46V16)
 92 kg (202 lb 7 oz) (KP-53V15/53V16)
 130 kg (286 lb 10 oz) (KP-61V15)

Supplied accessories
 Remote Commander RM-Y115 (1)
 with 2 size AA (R6)
 EVEREADY batteries

Optional accessories
 U/V mixer EAC-66
 Connecting cable
 RK-74A
 VMC-810S/820S
 YC-15V/30V
 VCR Tray SU-PJT1

Design and specifications are subject to change without notice.

(CAUTION)

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
 THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK Δ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

(ATTENTION)

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHASSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISE LORS DE TOUT DEPANNAGE.
 LE CHASSIS DE CE RECEPTEUR EST DIRECTEMENT RACCORDE A L'ALIMENTATION SECTEUR.

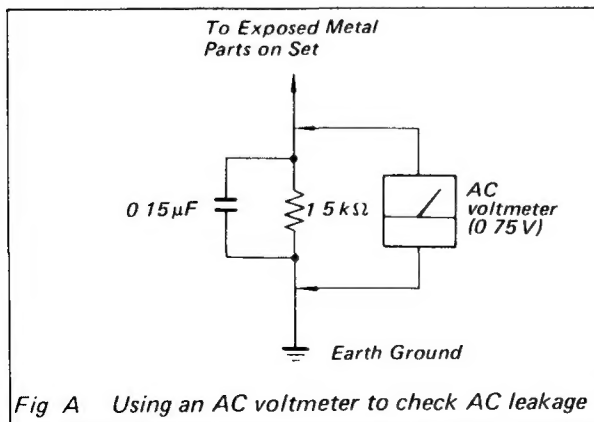
ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!

LES COMPOSANTS IDENTIFIES PAR UNE TRAME ET PAR UNE MAPQUE Δ SUR LES SCHEMAS DE PRINCIPE, LES VUES EXPLOSEES ET LES LISTES DE PIECES CONT D'UNE IMPORTANCE CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMERO DE PIECE EST INDIQUE DANS LE PRESENT MANUEL OU DANS DES SUPPLEMENTS PUBLIES PAR SONY. LES REGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT SONT IDENTIFIES DANS LE PRESENT MANUEL. SUIVRE CES PROCEDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTE.

SAFETY CHECK-OUT (US Model Only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any).
 Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate, be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.



LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods:

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground, the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-100 watt trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

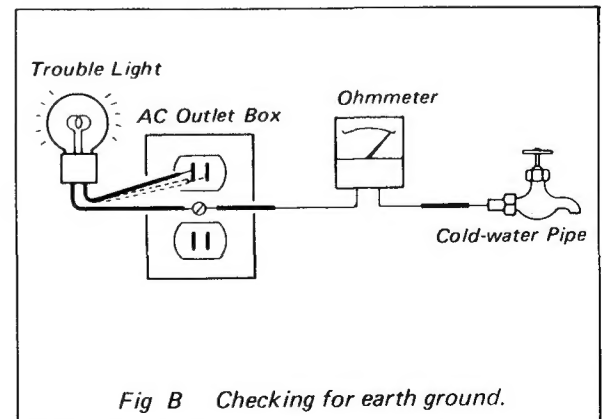


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The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

SECTION 1 GENERAL

1-1. UNPACKING AND VIEWING AREA

- 1 Carefully follow the instructions on the outside of the packing carton to unpack the projection TV.

Notes

- The supplied accessories are packed in the bottom of the carton. Be sure not to throw them away.
- Keep the original carton and packing materials to safely transport the projection TV in the future.

- 2 Check to make sure that the following is included:

Universal Remote Commander
RM-Y112A (1) (for KP-41EXR96)
RM-Y115 (1) (for other models)
with 2 size AA (R6) EVEREADY batteries

If the Remote Commander is missing, contact your dealer.

- 3 Place the projection TV in a cool, dry place where the ventilation openings at the sides are not blocked.

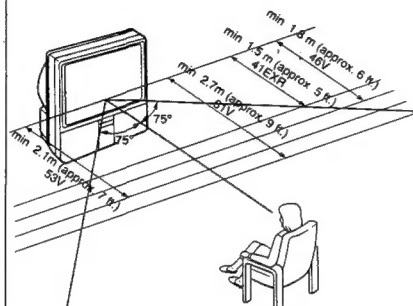
- 4 Plug the projection TV power cord into an AC 120 volt power outlet.

For further precautions, see p. 2.

Optimum viewing area

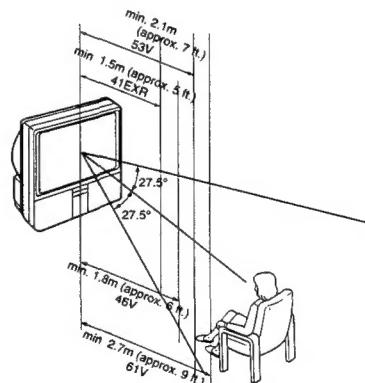
For the best picture quality, try to position the projection TV so that you can view the screen from within the areas shown below.

Horizontal viewing area



Optimum viewing position

Vertical viewing area

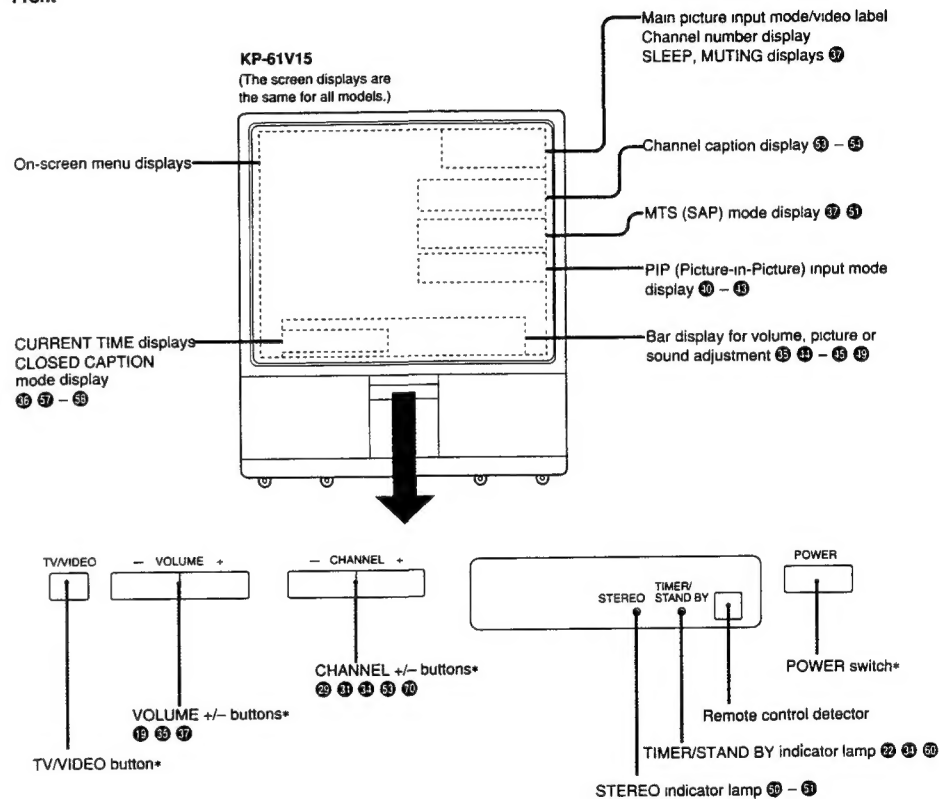


Optimum viewing position

1-2. LOCATING CONTROLS AND CONNECTORS

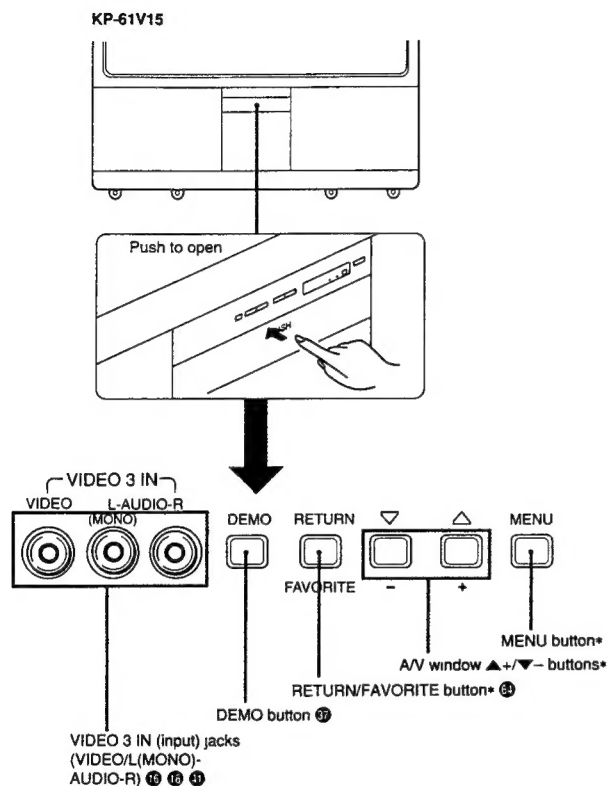
For details, see the pages indicated by the numbered black circles ●

Front



* Buttons with the same function are also located on the Remote Commander (p. 10).

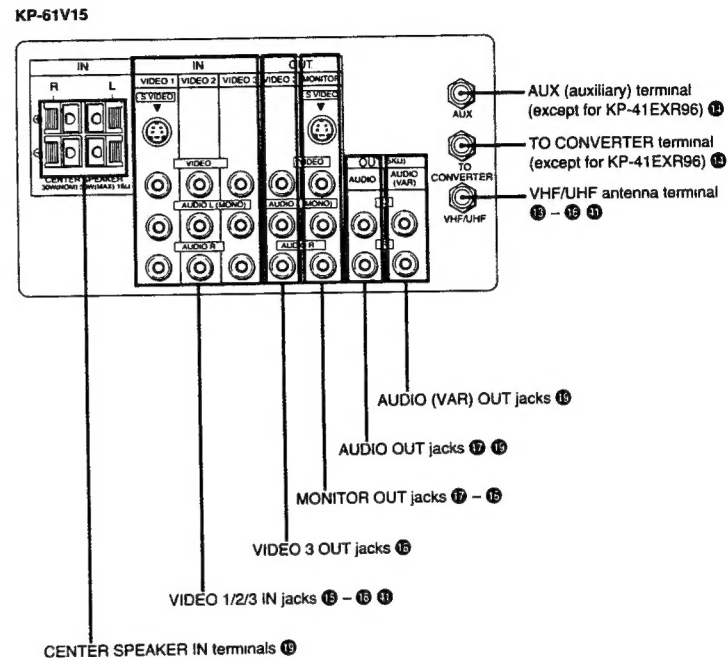
Front Inner panel



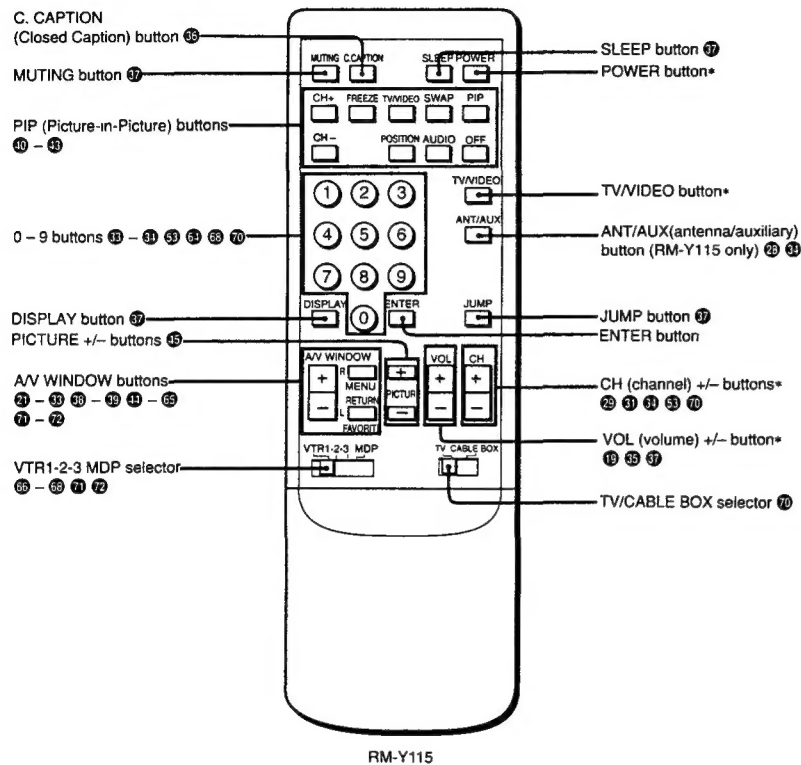
* Buttons with the same function are also located on the Remote Commander (p. 10).

Note
The instructions in this manual are based for the most part on operating the projection TV with the Remote Commander. You can also use the buttons on the projection TV that have the same function.

Rear



Remote Commander (with the video control cover closed)



RM-Y115

RM-Y112A: KP-41EXR96
RM-Y115: KP-46V15
KP-46V16
KP-53V15
KP-53V16
KP-61V15

* Buttons with the same function are also located on the projection TV (p. 7).

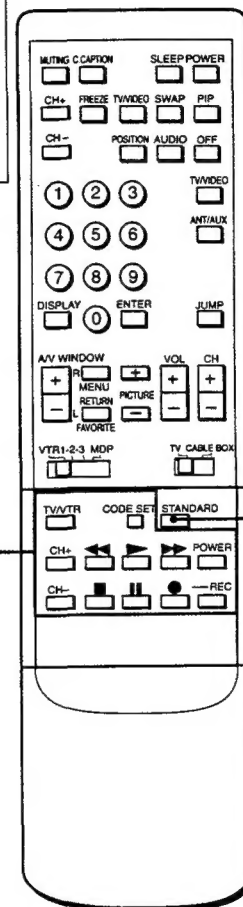
Note

If the TV/CABLE BOX selector is set to CABLE BOX, the Remote Commander is able to control a connected cable box, not the projection TV (p. 70). Set the selector to TV to control the projection TV with the Remote Commander.

Remote Commander (with the video control cover open)



Video operating buttons 65-67, 71

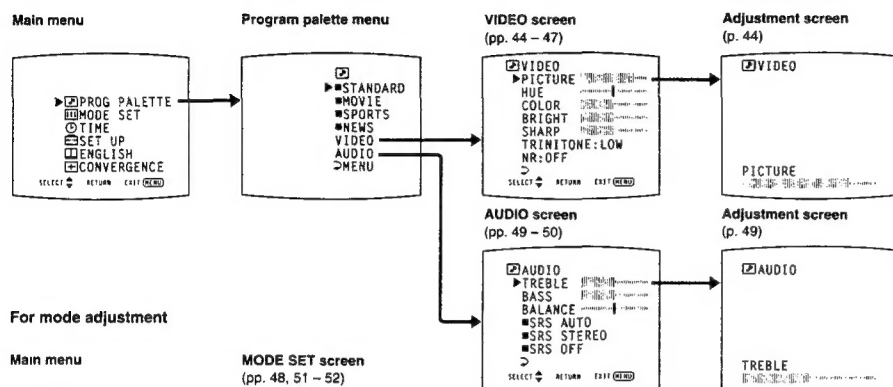


RM-Y115

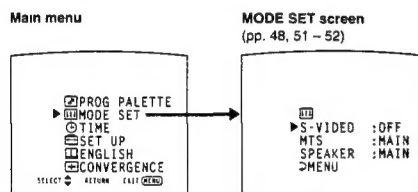
1-3. USING THE ON-SCREEN MENUS

The following flow chart shows the different levels of on-screen menus that you can use to make various adjustments and settings. See the indicated pages for instructions on using each feature.

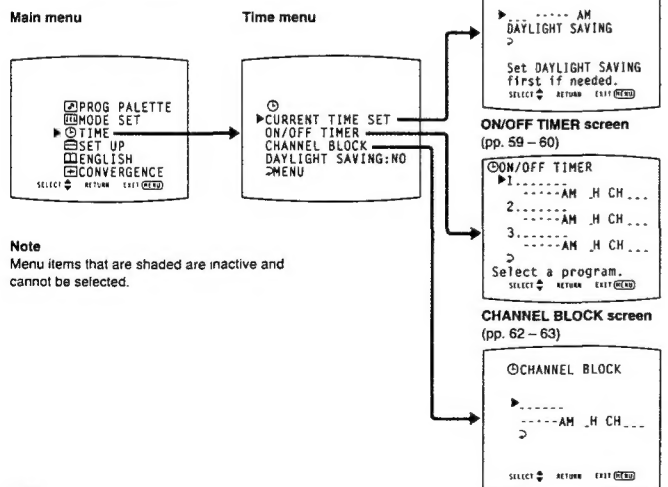
For picture and sound quality adjustment



For mode adjustment

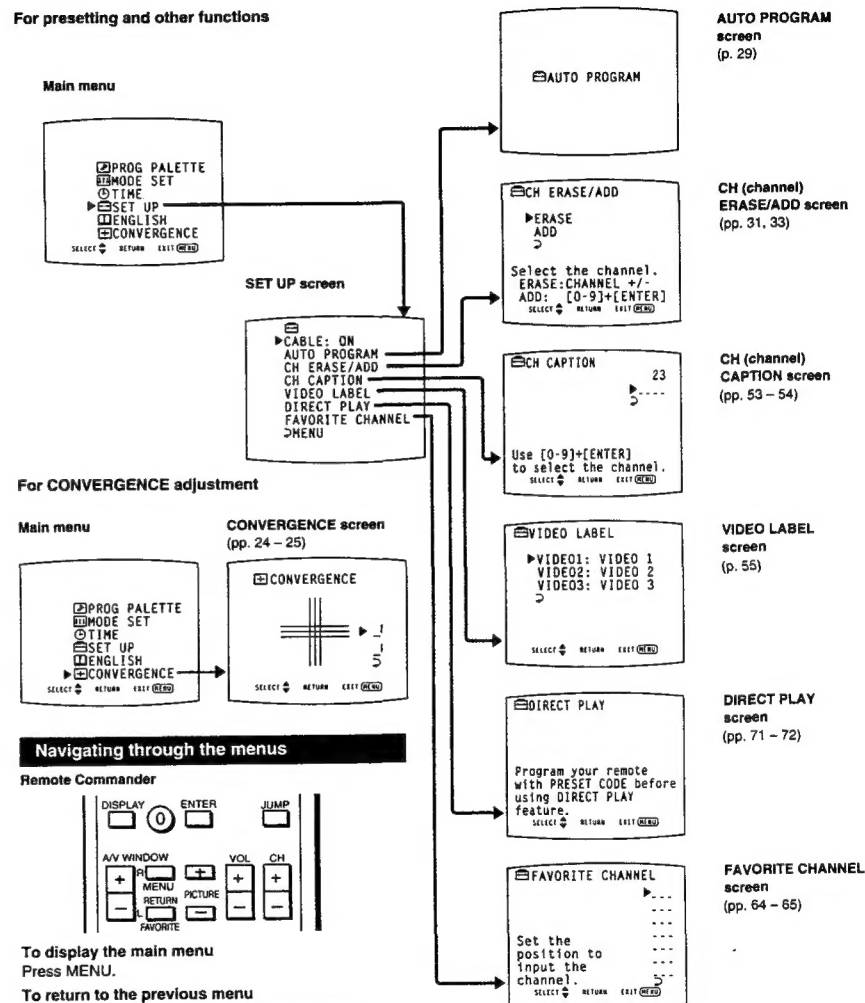


For time-related settings

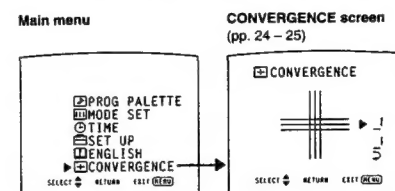


Note
Menu items that are shaded are inactive and cannot be selected.

For presetting and other functions

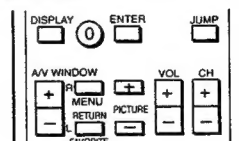


For CONVERGENCE adjustment



Navigating through the menus

Remote Commander



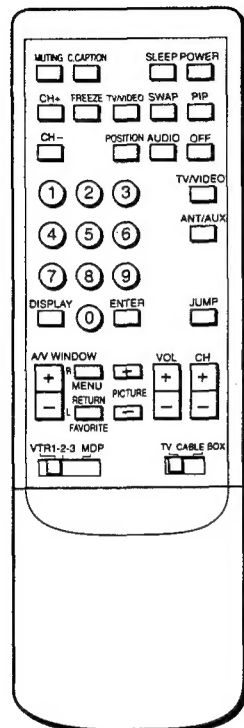
To display the main menu
Press MENU.

To return to the previous menu
Press A/V WINDOW +/- until the cursor points to "➤MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU.

Note
The menus disappear automatically, if you do not press a button within 90 seconds.



RM-Y115

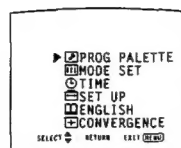
Changing the menu language

The menu language is factory-set to ENGLISH. Follow these instructions to change the menu language to Spanish or French, or back to English.

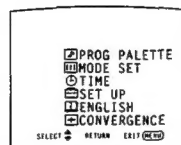
- 1 Press POWER to turn on the projection TV. *TIMER/STAND BY indicator blinks until the picture appears.*



- 2 Press MENU. *The main menu appears.*



- 3 Press A/V WINDOW +/- until the cursor points to "ENGLISH." Then press RETURN. *The language display turns red.*

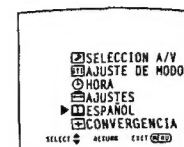


- 4 Press A/V WINDOW +/- to select the language. *Each time you press A/V WINDOW +/-, the "ESPAÑOL," "FRANÇAIS" and "ENGLISH" menus appear.*



Note
Certain parts of the "ESPAÑOL" and "FRANÇAIS" menus remain in English.

- 5 Press RETURN. *The language is selected.*



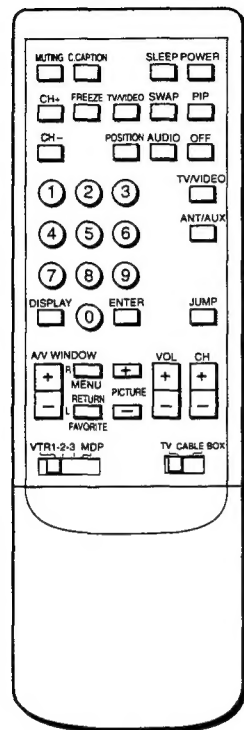
Spanish menu

To return to the normal screen.
Press MENU.

Notes concerning menus

- During PIP (Picture-in-Picture) mode, the on-screen menus may overlap the window picture.
- The menus disappear automatically, if you do not press a button within 90 seconds.

1-4. ADJUSTING COLOR REGISTRATION (CONVERGENCE)



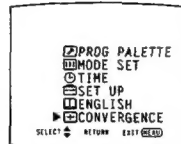
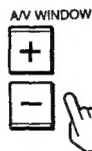
RM-Y115

In a projection TV, the projection tube image appears on the screen in three color layers (red, green and blue). If these layers are not in proper registration, the color is poor and the picture blurs. To correct this, perform the CONVERGENCE adjustment.

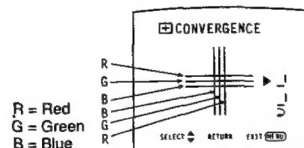
- 1** Press MENU.
The main menu appears.



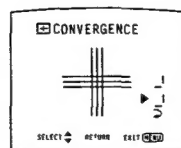
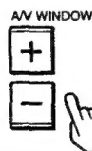
- 2** Press A/V WINDOW +/- until the cursor points to "CONVERGENCE."



- 3** Press RETURN.
The CONVERGENCE screen and the colored adjustment lines appear.



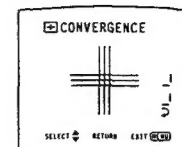
- 4** Press A/V WINDOW +/- until the cursor points to the symbol representing the line you want to adjust (see the key below).



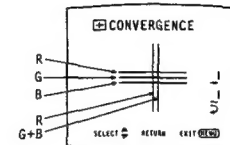
Adjustment line symbols key

- | (red vertical: left/right adjustment)
- (red horizontal: up/down adjustment)
- | (blue vertical: left/right adjustment)
- (blue horizontal: up/down adjustment)

- 5** Press RETURN.
The adjustment line is selected.

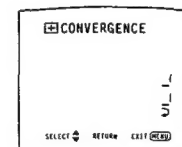


- 6** Press A/V WINDOW +/- until the line converges with the center green line. Then press RETURN.



To move up	Press A/V WINDOW +.
To move right	
To move down	Press A/V WINDOW -.
To move left	

- 7** Repeat steps 4 – 6 to adjust the other lines, until all the lines have overlapped to form a white cross.

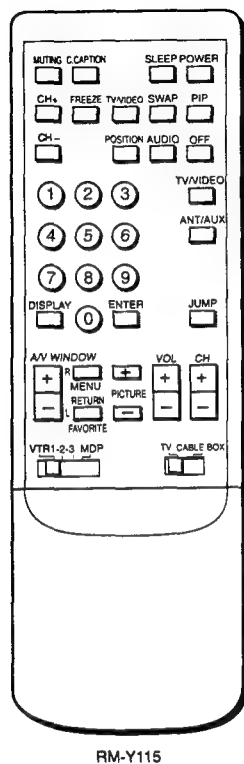


To return to the previous menu
Press A/V WINDOW +/- until the cursor points to " > MENU." Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU.

1-5. SETTING CABLE ON OR OFF



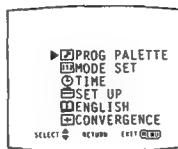
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If you have cable connected to the projection TV, follow the steps below to set the cable connection on or off. Set CABLE OFF to preset or watch VHF or UHF channels, and set CABLE ON to preset or watch cable TV channels.

Note

If the projection TV is in video mode, the "CABLE" display is shaded and cannot be selected. Press TV/VIDEO to change to TV mode.

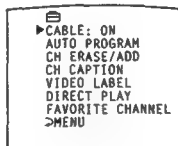
- 1 Press MENU.
The main menu appears.



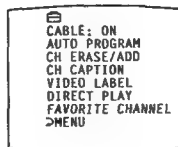
- 2 Press A/V WINDOW +/- until the cursor points to "SET UP".



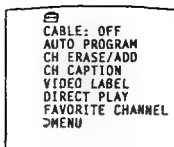
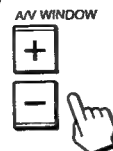
- 3 Press RETURN.
The set up menu appears, and the cursor points to "CABLE."



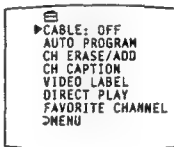
- 4 Press RETURN again.
The mode display turns red.



- 5 Press A/V WINDOW +/- to select "ON" or "OFF".



- 6 Press RETURN.
The setting is complete.



To return to the previous menu

Press A/V WINDOW +/- until the cursor points to "> MENU." Then press RETURN.

To return to the main menu

Repeat the above, until you reach the main menu.

To return to the normal screen.

Press MENU.

Cable TV channel chart*

Cable TV systems use letters or numbers to designate channels. To tune in a channel, refer to the chart below.

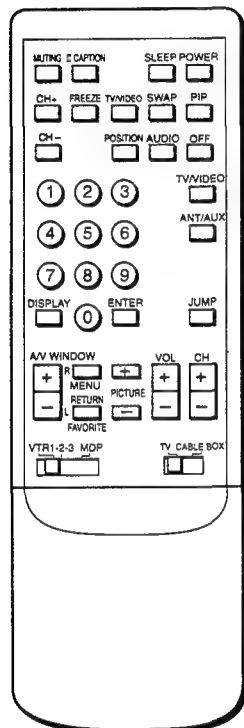
Number on this TV	Corresponding CATV channel
1	A-8
5	A-7
6	A-6
14	A
15	B
16	C
17	D
18	E
19	F
20	G
21	H
22	I
23	J
24	K
25	L
26	M
27	N
28	O
29	P
30	Q
31	R
32	S
33	T
34	U
35	V
36	W
37	W+1
38	W+2
39	W+3
...	...
93	W+57
94	W+58
95	A-5
96	A-4
97	A-3
98	A-2
99	A-1
100	W+59
101	W+60
102	W+61
...	...
123	W+82
124	W+83
125	W+84

Check with your local cable TV company for more complete information on the available channels.

* The designation of the cable TV channels conforms to the EIA/NCTA recommendation.

1-6. PRESETTING TV CHANNELS

By presetting TV channels to the projection TV, you can select channels by pressing CH (CHANNEL) +/-
(You can select VHF channels 2 – 13 without presetting.)



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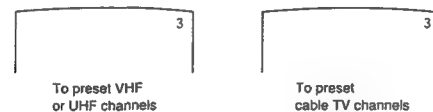
Presetting all receivable channels automatically

Follow these instructions to preset all the receivable VHF, UHF or cable TV channels to the projection TV.

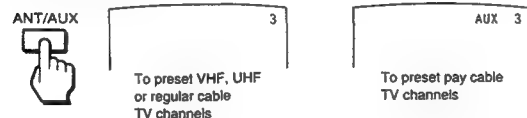
Notes

- If the projection TV is in video mode, the "AUTO PROGRAM" display is shaded and cannot be selected. Press TV/VIDEO to change to TV mode.
- Perform auto programming during the day rather than late at night, when some channels may not be broadcasting.

- 1 Set the cable connection on or off (pp. 26 – 27) to select the type of channel you want to preset, VHF/UHF or cable TV.



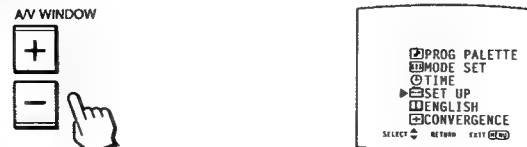
Press ANT/AUX to select the type of channel you want to preset, VHF/UHF/regular cable TV, or pay cable TV connected to the AUX (auxiliary) terminal (except for KP-41EXR96).



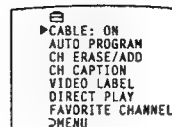
- 2 Press MENU.
The main menu appears.



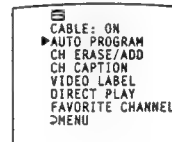
- 3 Press A/V WINDOW +/- until the cursor points to "SET UP"



- 4 Press RETURN.
The set up menu appears.



- 5 Press A/V WINDOW +/- until the cursor points to "AUTO PROGRAM."

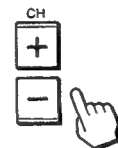


- 6 Press RETURN.



"AUTO PROGRAM" appears on the screen and receivable channels (other than the channels already preset) are preset in numerical sequence. The channels previously preset will not remain in the projection TV's memory. When no more channels are found, auto programming stops and the screen returns automatically to the set up menu.

- 7 Press CH +/- to check or view the preset channels.



Receivable channels for this projection TV

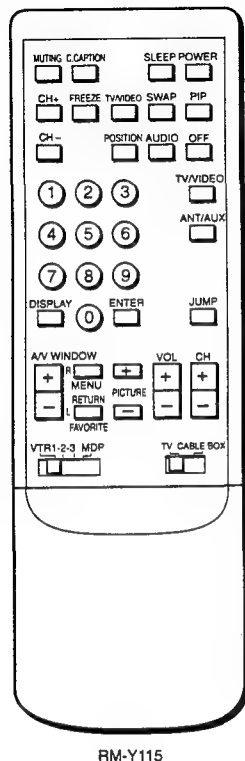
VHF: 2 – 13
UHF: 14 – 69
Cable: 1 – 125

To select TV channels without presetting
Press the 0 – 9 buttons and ENTER.

To return to the previous menu
Press A/V WINDOW +/- until the cursor points to " > MENU." Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU.



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Erasing TV channels

Follow these instructions to erase unnecessary TV channels, so that when you press CH +/-, the channel(s) are skipped.

- 1 Press MENU.
The main menu appears.



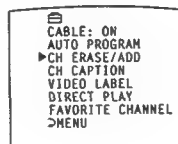
- 2 Press A/V WINDOW +/- until the cursor points to "SET UP".



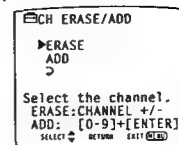
- 3 Press RETURN.
The set up menu appears.



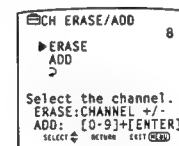
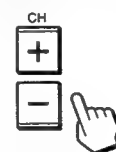
- 4 Press A/V WINDOW +/- until the cursor points to "CH ERASE/ADD."



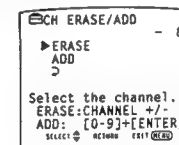
- 5 Press RETURN.
The CH ERASE/ADD screen appears, and the cursor points to "ERASE."



- 6 Press CH +/- to select the channel you want to erase.
The channel display appears.



- 7 Press RETURN.
A "-" sign appears in front of the channel number display, indicating that the channel is erased; then the CH ERASE/ADD screen automatically reappears.



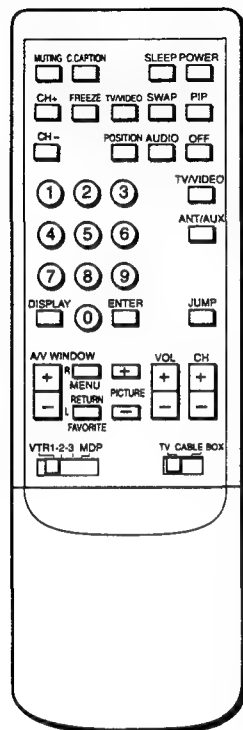
To erase another channel
Repeat steps 5 - 7.

To return to the previous menu
Press A/V WINDOW +/- until the cursor points to "> MENU." Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU.

Note
If you erase a VHF or UHF channel, the same number cable TV channel is also erased (and vice versa).



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Adding TV channels

Follow these instructions to add TV channels one by one to the selection memory, or to replace a TV channel you previously erased (pp. 30 – 31).

- 1 Press MENU.
The main menu appears.



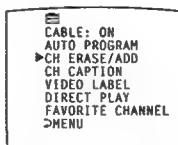
- 2 Press A/V WINDOW +/- until the cursor points to "SET UP."



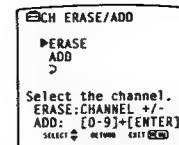
- 3 Press RETURN.
The set up menu appears.



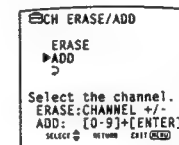
- 4 Press A/V WINDOW +/- until the cursor points to "CH ERASE/ADD."



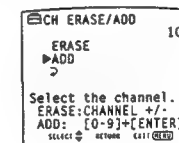
- 5 Press RETURN.
The CH ERASE/ADD screen appears.



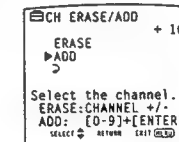
- 6 Press A/V WINDOW +/- until the cursor points to "ADD."



- 7 Press 0 – 9 and ENTER to select the channel you want to add.
The channel display appears.



- 8 Press RETURN.
A "+" sign appears in front of the channel number display, indicating that the channel is added; then the CH ERASE/ADD screen automatically reappears.



To add another channel
Repeat steps 7 – 8.

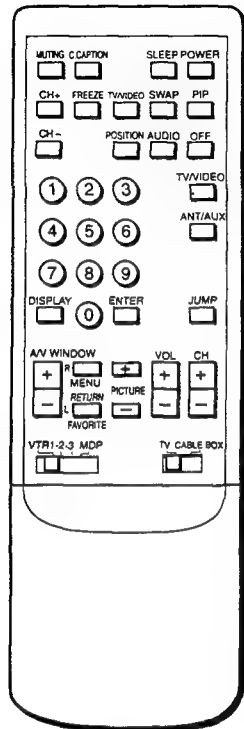
To return to the previous menu
Press A/V WINDOW +/- until the cursor points to " > MENU." Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU.

Note
If you add a VHF or UHF channel, the same number cable TV channel is also added (and vice versa).

1-7. WATCHING TV PROGRAMS



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Make sure that the TV/CABLE BOX selector on the Remote Commander is set to TV, in order to control the projection TV with the Remote Commander.

- 1** Press POWER to turn on the projection TV.
TIMER/STAND BY indicator blinks until the picture appears.



- 2** Set the cable connection on or off (pp. 26 - 27) to select the type of channel you want to watch, VHF/UHF or cable TV.



To watch VHF
or UHF channels



To watch
cable TV channels

Press ANT/AUX to select the type of channel you want to preset, VHF/UHF/regular cable TV, or pay cable TV connected to the AUX (auxiliary) terminal (except for KP-41EXR96).



To preset VHF, UHF
or regular cable
TV channels

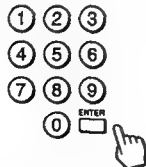


To preset pay cable
TV channels

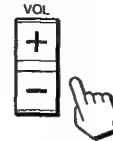
- 3** Select a channel in one of the following two ways:
To scan the preset channels in numerical sequence, press CH +/-



To select a channel directly, press 0 - 9 and then ENTER.
For example, to select channel 10, press 1, 0 and ENTER.



- 4** Press VOL +/- to adjust the volume.



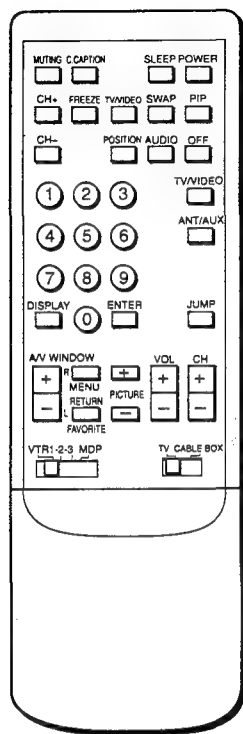
Press + to increase the volume.
Press - to decrease the volume.

If VIDEO 1, VIDEO 2 or VIDEO 3 appears on the screen
Press TV/VIDEO until a TV channel number appears.

To select channels more easily
Set FAVORITE CHANNEL (pp. 64 - 65).

To turn off the projection TV
Press POWER.

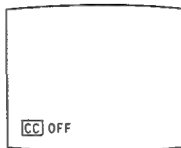
1-8. USING CLOSED CAPTION



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- 1** Press C. CAPTION.
The closed caption mode appears. CC1, CC2, TEXT1, TEXT2 or CC OFF appears in sequence each time you press C. CAPTION.

CC OFF → CC 1 → CC 2 → TEXT 1 → TEXT 2



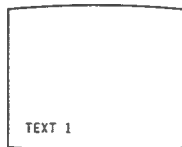
- 2** Press C. CAPTION repeatedly.



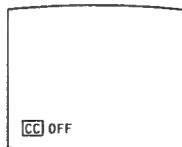
Select CC1 or CC2 to view Captions.
A Caption is a printed version of the dialogue or sound effects of a program.
(The mode should be set to CC1 for most programs.)



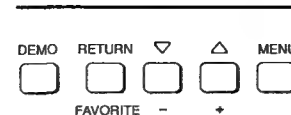
Select TEXT1 or TEXT2 to view Text.
Text is information that is presented using the half to full television screen.
It is usually not related to the program.



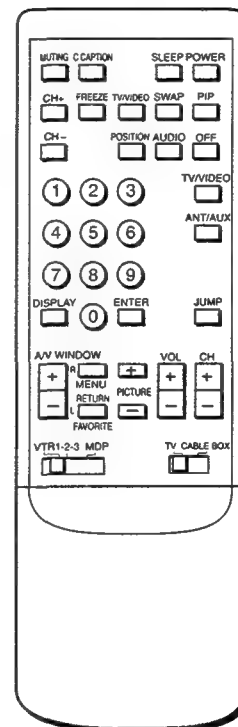
Select CC OFF if you don't want to view Closed Caption nor Text.



1-9. USING CONVENIENT FEATURES



Front inner panel



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Muting the sound — MUTING

Press MUTING.
"MUTING" appears on the screen.



To restore the sound
Press MUTING again, or press VOL +.

Keeping the displays on-screen — DISPLAY

Press DISPLAY.
All the existing displays appear: channel number, channel caption (if set), MTS mode ("SAP" only), window picture input mode, and the current time ("AM" or "PM" disappears after about three seconds).

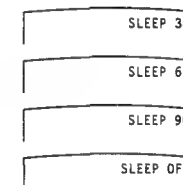


To turn off the displays
Press DISPLAY again.

Setting the sleep timer — SLEEP

The sleep timer turns off the projection TV automatically after the amount of time you select.

Press SLEEP.
Each time you press SLEEP, the time increments "30," "60," "90" and "OFF" mode appear in sequence.



A red "SLEEP" display appears about one minute before the projection TV goes off.

To cancel the setting.
Press SLEEP until OFF mode appears.
A green "SLEEP OFF" display appears for about three seconds.

OR
Turn the projection TV off.
The sleep timer setting is cancelled.

Switching quickly between two channels — JUMP

Use this function to keep track of two programs alternately.

To recall the channel you were watching previously
Press JUMP

To switch back to the first channel
Press JUMP again.



Previewing the features — DEMO

Press DEMO (front inner panel).
Functions and menus are displayed one by one.

To restart DEMO from the beginning
Press DEMO again.

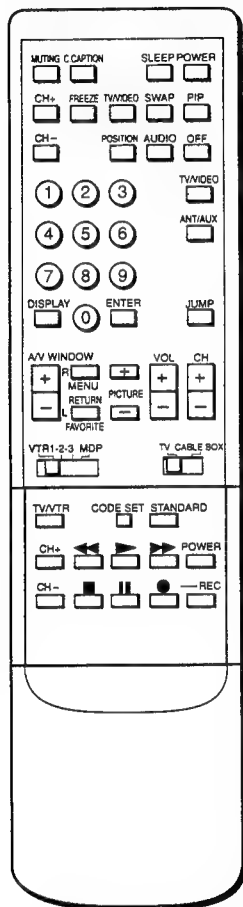
To stop DEMO
Press any button.



1-10. SELECTING A PICTURE AND SOUND MODE

This projection TV features four modes (STANDARD, MOVIE, SPORTS, NEWS) that offer different picture and sound qualities. Choose the one that best suits the type of program that you want to watch.

Example: Select MOVIE mode for picture and sound that gives you the sense of being in a movie theater.

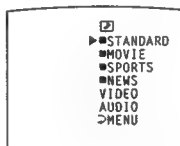


(with video control
cover open)
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- 1 Press MENU.
The main menu appears, and the cursor points to "PROG PALETTE."



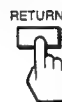
- 2 Press RETURN.
The program palette menu appears.



- 3 Press A/V WINDOW +/- until the cursor points to "MOVIE."



- 4 Press RETURN.
The "MOVIE" display turns green, indicating that MOVIE mode is selected.



To select a different mode
Repeat steps 3 - 4.

Selecting standard mode (without using the menus)

Follow these instructions to select standard mode without using the on-screen menus.

Press STANDARD.



When you select STANDARD mode

You receive standard picture and sound quality. Any video or audio adjustments you made ("Adjusting the Projection TV," pp. 44 - 52) are cancelled and the original factory settings are restored.

When you select MOVIE mode

You receive a finely detailed picture, and a theatrical audio effect. To further adjust picture and sound qualities, follow the instructions on pp. 44 - 52.

When you select SPORTS mode

You receive a vivid, bright picture, and sound with a sports stadium effect. To further adjust picture and sound qualities, follow the instructions on pp. 44 - 52.

When you select NEWS mode

Picture noise is reduced, and you receive clear voice reproduction. To further adjust picture and sound qualities, follow the instructions on pp. 44 - 52.

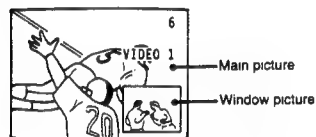
To return to the previous menu
Press A/V WINDOW +/- until the cursor points to " > MENU." Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU.

1-11. WATCHING TWO PICTURES AT ONCE (PIP)

You can watch both the main picture and a window picture simultaneously, using the Picture-in-Picture (PIP) function. KP-41EXR96 is equipped with one-tuner PIP. To watch two TV channels simultaneously, you must first connect a VCR to the projection TV, which will enable you to watch a second TV channel through the VCR tuner. (See "Connecting Other Equipment," pp. 15-19.) Other models are equipped with two-tuner PIP, allowing you to watch two TV channels at once.



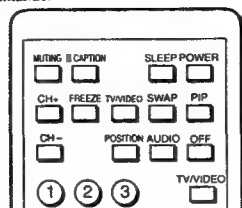
Picture-in-Picture special features

When watching the main picture and a window picture, you can:

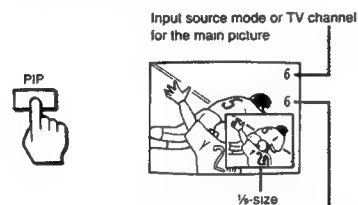
- Swap the main and window pictures (SWAP).
- Change the position of the window picture (POSITION).
- Display a still picture (FREEZE).
- Choose the sound from the main or window picture (AUDIO).

Displaying a window picture

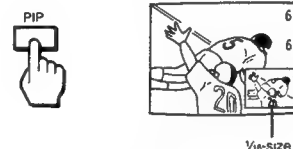
Remote Commander



Press PIP to display a window picture



Input source mode or TV channel for the window picture



A window picture appears in the last mode you watched. Each time you press PIP, a 1/2 or 1/4 size window picture appears alternately.


To turn PIP function off

Press OFF

The window picture disappears.

To receive the window picture sound

Press AUDIO.

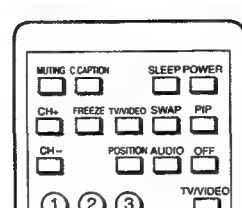
The  display appears for a few seconds, indicating that the window picture sound is being received.

To restore the main picture sound

Press AUDIO again.

Changing the window picture input mode

Remote Commander



1 Press PIP to display a window picture.



2 Press TV/VIDEO in the Picture-in-Picture control area to select the input mode. Each time you press TV/VIDEO, "TV," "VIDEO 1," "VIDEO 2" and "VIDEO 3" appear in sequence.



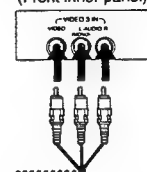
To change TV channels in the window picture

Press CH +/- in the PIP control area.

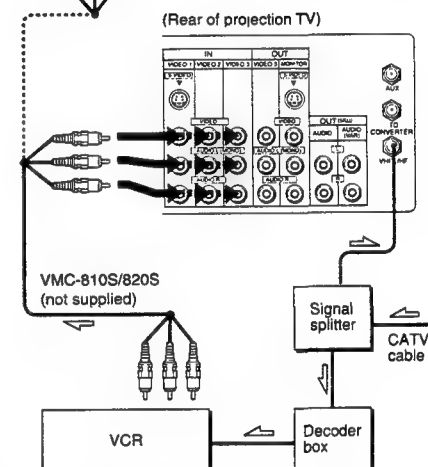
Displaying CATV input as a window picture

To use Picture-in-Picture with pay cable TV input, make the connections to your cable converter box as shown below.

(Front inner panel)



Signal flow



After making the above connections, turn the cable connection on by following the steps on pp. 26-27; then continue with the steps below.

1-2 Follow steps 1-2 in "Changing the window picture input mode" on this page to select the video input mode for your connected VCR.

3 Put your VCR on an inactive channel (channel 3 or 4).

4 Change pay cable TV channels with the decoder box.

To control your cable converter box with the supplied Remote Commander
See p. 70.

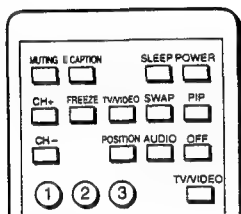
Notes

- The window picture sound is also output from the AUDIO (VAR) OUT jacks. The AUDIO OUT and MONITOR OUT jacks output the main picture sound only.
- The video label and channel caption will not appear with the window picture even if you have set them.
- If you select a blocked channel in the window picture, the display "BLOCKED" appears with the window picture. (See "Setting CHANNEL BLOCK," pp. 62-63.)

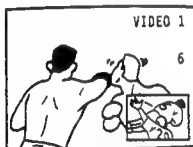
Changing the position of the window picture

Follow these instructions to change the position of the window picture on the screen.

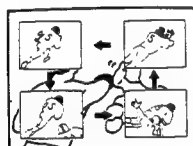
Remote Commander



- 1 Press PIP to display a window picture.



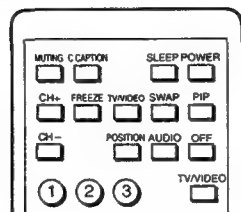
- 2 Press POSITION.
Each time you press POSITION, the window picture moves as illustrated.



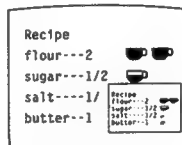
Displaying a still picture

Use the FREEZE function to display a still picture. This function is useful when you want to write down a recipe from a cooking program, a displayed address or phone number and so on.

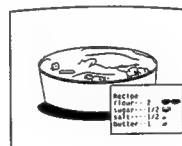
Remote Commander



- 1 Press PIP to display a window picture.



- 2 Press FREEZE.
The window picture image remains still on the screen.

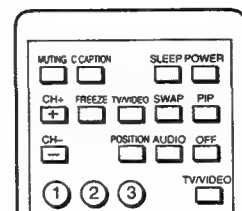


To restore the normal picture
Press FREEZE again.

Swapping the main and window pictures

Follow these instructions to swap the input signals of the main and window pictures.

Remote Commander



- 1 Press PIP to display a window picture.



- 2 Press SWAP.
Each time you press SWAP the images from the main and window pictures switch places.



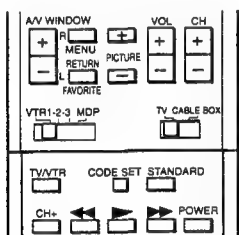
1-12. ADJUSTING THE PROJECTION TV

You can adjust the picture and sound for each input mode (TV, VIDEO 1, VIDEO 2, VIDEO 3) by pressing TV/VIDEO on the projection TV or on the Remote Commander to select the input mode, before making the adjustments. These adjustments are retained in memory even when you turn off the projection TV, but are cancelled after you change the adjustments, or select a picture and sound mode (pp. 38 – 39).

Adjusting the picture

Follow these instructions to adjust PICTURE, HUE, COLOR, BRIGHT (brightness) and SHARP (sharpness).

Remote Commander (with video control cover open)



- 1 Press MENU.
The main menu appears, and the cursor points to "PROG PALETTE."



- 2 Press RETURN.
The program palette menu appears.



- 3 Press A/V WINDOW +/- until the cursor points to "VIDEO."

- 4 Press RETURN.
The VIDEO screen appears.



- 5 Press A/V WINDOW +/- until the cursor points to the item you want to adjust.

- 6 Press RETURN.
The adjustment screen appears.



- 7 Press A/V WINDOW +/- to make the adjustment.

Picture quality	Press A/V WINDOW -	Press A/V WINDOW +
PICTURE	For decreased picture contrast with soft color	For increased picture contrast with vivid color
HUE	Skin tones become purplish	Skin tones become greenish
COLOR	For less color intensity	For more color intensity
BRIGHT	For less brightness	For more brightness
SHARP	For less sharpness	For more sharpness

- 8 Press RETURN.
The adjustment is complete, and the VIDEO screen automatically reappears.



To adjust other items
Repeat steps 5 – 8.

To restore the factory settings for all the items
Select "STANDARD" on the program palette menu, and press RETURN;
or, press STANDARD on the Remote Commander.
All the items, including TRINITONE (p. 46) and NR (p. 47) return to their original factory settings.

To adjust picture contrast
You can also adjust picture contrast with the PICTURE +/- buttons on the Remote Commander.



Press + to increase picture contrast with vivid color.
Press - to decrease picture contrast with soft color.
The picture adjustment screen appears.

To return to the previous menu
Press A/V WINDOW +/- until the cursor points to " > MENU."
Then press RETURN.

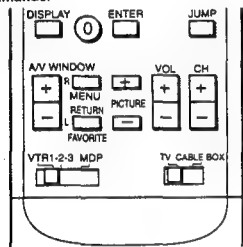
To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU.

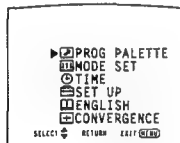
Setting the TRINITONE mode

Color picture tubes are usually manufactured with a fixed color temperature (tint) that determines the "warmth" (red tint) or "coolness" (blue tint) of the picture. Use the Sony Trinitone feature to adjust the picture color to your preference.

Remote Commander



- 1 Press MENU.
The main menu appears, and the cursor points to "PROG PALETTE."



- 2 Press RETURN.
The program palette menu appears.



- 3 Press A/V WINDOW +/- until the cursor points to "VIDEO."

- 4 Press RETURN.
The VIDEO screen appears.



- 5 Press A/V WINDOW +/- until the cursor points to "TRINITONE."

- 6 Press RETURN.
The mode display turns red.

- 7 Press A/V WINDOW +/- to select "HIGH" or "LOW."
Select "HIGH" to make the picture cool (bluish).
Select "LOW" to make the picture warm (reddish).

- 8 Press RETURN.
The setting is complete.

To return to the previous menu

Press A/V WINDOW +/- until the cursor points to "> MENU."
Then press RETURN.

To return to the main menu

Repeat the above, until you reach the main menu.

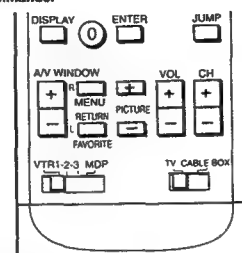
To return to the normal screen

Press MENU.

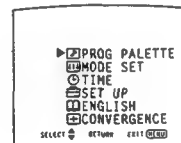
Setting NR (picture noise reduction) ON or OFF

Follow these instructions to reduce picture noise.

Remote Commander



- 1 Press MENU.
The main menu appears, and the cursor points to "PROG PALETTE."



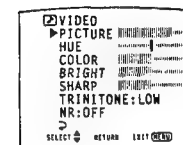
- 2 Press RETURN.
The program palette menu appears.



- 3 Press A/V WINDOW +/- until the cursor points to "VIDEO."

- 4 Press RETURN.
The VIDEO screen appears.

- 5 Press A/V WINDOW +/- until the cursor points to "NR."



- 6 Press RETURN.
The mode display turns red.

- 7 Press A/V WINDOW +/- to select "ON" or "OFF"
Select "ON" to reduce picture noise.
Select "OFF" to restore the normal picture.

- 8 Press RETURN.
The setting is complete.

To return to the previous menu

Press A/V WINDOW +/- until the cursor points to "> MENU."
Then press RETURN.

To return to the main menu

Repeat the above, until you reach the main menu.

To return to the normal screen

Press MENU.

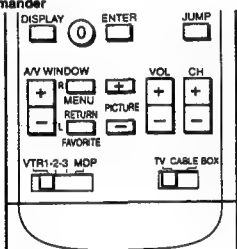
Setting S-VIDEO ON or OFF

Follow these instructions to set S-VIDEO on or off, depending on the kind of video equipment you have connected to the projection-TV. For instructions on connecting video equipment, see pp. 15 – 18.

Note

If the projection TV is in TV, VIDEO 2 or VIDEO 3 mode, the "S-VIDEO" display is shaded and cannot be selected. Press TV/VIDEO on the projection TV or on the Remote Commander to change to VIDEO 1 mode.

Remote Commander

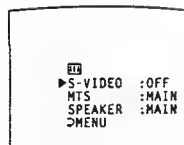


- 1 Press MENU.
The main menu appears.



- 2 Press A/V WINDOW +/- until the cursor points to "MODE SET."

- 3 Press RETURN.
The mode set menu appears, with the cursor pointing to "S-VIDEO."



- 4 Press RETURN.
The mode display turns red.

- 5 Press A/V WINDOW +/- to select "ON" or "OFF"

- 6 Press RETURN.
The setting is complete.

To return to the previous menu

Press A/V WINDOW +/- until the cursor points to " > MENU."

Then press RETURN.

To return to the main menu

Repeat the above, until you reach the main menu.

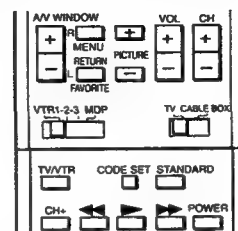
To return to the normal screen

Press MENU.

Adjusting the sound

Follow these instructions to adjust the TREBLE, BASS and BALANCE.

Remote Commander (with video control cover open)



- 1 Press MENU.
The main menu appears, and the cursor points to "PROG PALETTE."



- 2 Press RETURN.
The program palette menu appears.



- 3 Press A/V WINDOW +/- until the cursor points to "AUDIO."

- 4 Press RETURN.
The AUDIO screen appears.



- 5 Press A/V WINDOW +/- until the cursor points to the item you want to adjust.

- 6 Press RETURN.
The adjustment screen appears.



- 7 Press A/V WINDOW +/- to make the adjustment.

Sound quality	Press A/V WINDOW -	Press A/V WINDOW +
TREBLE	To decrease the treble response	To increase the treble response
BASS	To decrease the bass response	To increase the bass response
BALANCE	To emphasize the left speaker's volume	To emphasize the right speaker's volume

- 8 Press RETURN.
The adjustment is complete, and the AUDIO screen automatically reappears.



To adjust other items

Repeat steps 5 – 9.

To restore the factory settings for all the items

Select "STANDARD" on the program palette menu, and press RETURN; or, press STANDARD on the Remote Commander.

All the items, including SRS mode (p. 50) return to their original factory settings.

To return to the previous menu

Press A/V WINDOW +/- until the cursor points to " > MENU."

Then press RETURN.

To return to the main menu

Repeat the above, until you reach the main menu.

To return to the normal screen

Press MENU.

Selecting an SRS (Sound Retrieval System) mode

For lifelike sound reproduction, follow the instructions below to select the SRS mode you prefer.

In SRS AUTO mode, SRS functions in both monaural and stereo modes.

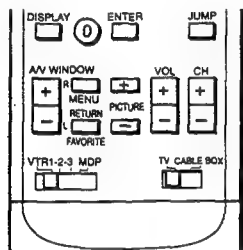
Monaural sound programs will have a "simulated stereo" effect.

In SRS STEREO mode, SRS functions only when a stereo program is received.

The STEREO lamp on the TV lights up whenever a stereo broadcast is received.

Select SRS OFF mode to return to normal sound mode.

Remote Commander



- 1 Press MENU.
The main menu appears, and the cursor points to "PROG PALETTE."



- 2 Press RETURN.
The program palette menu appears.



- 3 Press A/V WINDOW +/- until the cursor points to "AUDIO."

- 4 Press RETURN.
The AUDIO screen appears.



- 5 Press A/V WINDOW +/- until the cursor points to the SRS mode you want.

- 6 Press RETURN.
The mode is selected.

To change the SRS mode
Repeat steps 5 - 6.

To return to the previous menu
Press A/V WINDOW +/- until the cursor points to " > MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen
Press MENU.

Selecting an MTS (Multichannel TV Sound) mode

Follow these instructions to select an MTS mode.

Select MAIN mode to listen to stereo sound.

The STEREO lamp on the projection TV lights up whenever a stereo broadcast is received.

Select SAP mode to listen to Second Audio Programs.

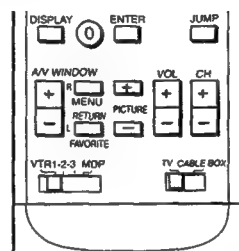
Select MONO mode to eliminate excessive noise during stereo broadcasts, caused by a weak incoming signal.

Note

If the projection TV is in video mode, the "MTS" display is shaded and cannot be selected.

Press TV/VIDEO on the projection TV or on the Remote Commander to change to TV mode.

Remote Commander

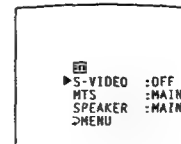


- 1 Press MENU.
The main menu appears.



- 2 Press A/V WINDOW +/- until the cursor points to "MODE SET."

- 3 Press RETURN.
The mode set menu appears.



- 4 Press A/V WINDOW +/- until the cursor points to "MTS."

- 5 Press RETURN.
The mode display turns red.

- 6 Press A/V WINDOW +/- to select the mode you want.
Each time you press A/V WINDOW +/-, "MAIN," "SAP" and "MONO" appear in sequence.

- 7 Press RETURN.
The mode is selected.

To return to the previous menu

Press A/V WINDOW +/- until the cursor points to " > MENU."

Then press RETURN.

To return to the main menu

Repeat the above, until you reach the main menu.

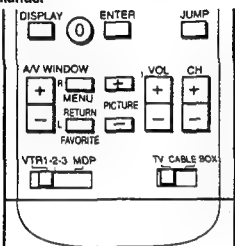
To return to the normal screen

Press MENU.

Setting SPEAKER — MAIN or CENTER

Follow these instructions to set SPEAKER to "CENTER" when you connect an audio system (p.19), and to "MAIN" when you want to listen to the sound from the projection TV speakers.

Remote Commander

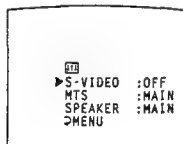


- 1 Press MENU.
The main menu appears.



- 2 Press A/V WINDOW +/- until the cursor points to "MODE SET."

- 3 Press RETURN.
The mode set menu appears.



- 4 Press A/V WINDOW +/- until the cursor points to "SPEAKER."

- 5 Press RETURN.
The mode display turns red.

- 6 Press A/V WINDOW +/- to select "MAIN" or "CENTER."

- 7 Press RETURN.
The setting is complete.

To return to the previous menu

Press A/V WINDOW +/- until the cursor points to " > MENU."

Then press RETURN.

To return to the main menu

Repeat the above, until you reach the main menu.

To return to the normal screen

Press MENU.

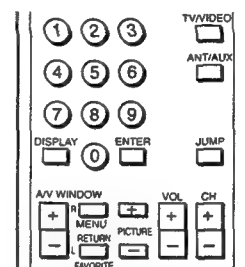
1-13. CUSTOMIZING THE SCREEN DISPLAY

Setting channel captions — CH CAPTION

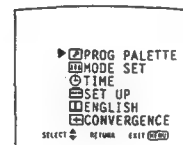
Follow these instructions to caption each channel number display with a name, for instance, the television station call letters. (You can set up to four letters or numbers).

Example: Caption channel 15 as "NBC."

Remote Commander

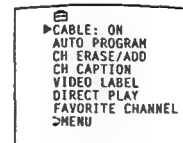


- 1 Press MENU.
The main menu appears.



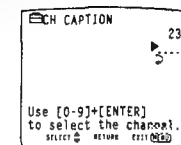
- 2 Press A/V WINDOW +/- until the cursor points to "SET UP"

- 3 Press RETURN.
The set up menu appears.

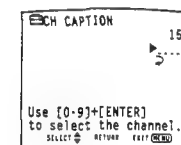


- 4 Press A/V WINDOW +/- until the cursor points to "CH CAPTION."

- 5 Press RETURN.
The CH CAPTION screen appears.

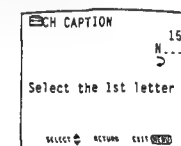


- 6 Press CH +/-, or press 1, 5 and ENTER to set channel "15."



- 7 Press RETURN.
The first caption space turns red.

- 8 Press A/V WINDOW +/- to select "N."
Each time you press A/V WINDOW +/-, "0" - "9," "A" - "Z," "S," "V," "L," and " " (blank space) appear in sequence.



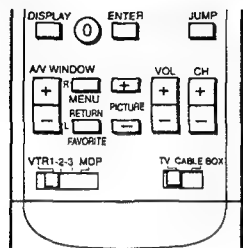
- 9 Press RETURN.
The second caption space turns red.

(Continued)

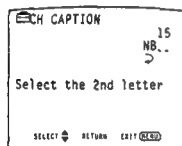
Setting channel captions – CH CAPTION

(Cont'd. from prev. page)

Remote Commander

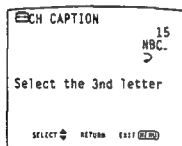


- 10** Press A/V WINDOW +/- to select "B."



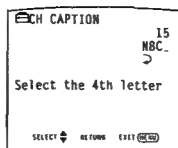
- 11** Press RETURN.
The third caption space turns red.

- 12** Press A/V WINDOW +/- to select "C."



- 13** Press RETURN.
The fourth caption space turns red.

- 14** Press A/V WINDOW +/- to select a blank space.



- 15** Press RETURN.
The setting is complete.
When you select or display the channel number, the channel caption also appears.

To caption more channels

Repeat steps 6 – 15.

To erase unnecessary captions

Display the CH CAPTION screen, select the channel with the caption you want to erase, and select blank spaces for the channel caption; then press RETURN.
The caption for that channel is erased.

To return to the previous menu

Press A/V WINDOW +/- until the cursor points to "➤ MENU."
Then press RETURN.

To return to the main menu

Repeat the above, until you reach the main menu.

To return to the normal screen

Press MENU.

Note

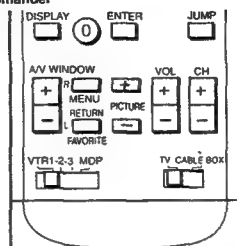
You can set up to 32 channel captions. If the memory is full, "The memory is full, sorry" appears on the screen. Erase any unnecessary captions, and begin again.

Setting VIDEO LABEL

Follow these instructions to label each input mode, in order to identify the equipment connected to each input terminal.

Example: Label VIDEO 1 IN as "VHS."

Remote Commander

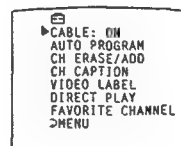


- 1** Press MENU.
The main menu appears.



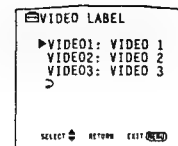
- 2** Press A/V WINDOW +/- until the cursor points to "SET UP."

- 3** Press RETURN.
The set up menu appears.



- 4** Press A/V WINDOW +/- until the cursor points to "VIDEO LABEL."

- 5** Press RETURN.
The VIDEO LABEL screen appears.



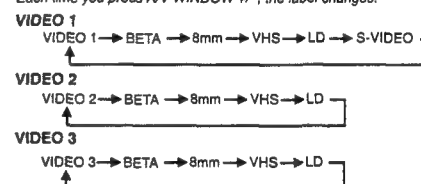
- 6** Press A/V WINDOW +/- until the cursor points to the input mode you want to label. (In this case, the cursor is already pointing to "VIDEO 1.")

- 7** Press RETURN.
The label display turns red.

- 8** Press A/V WINDOW +/- to select "VHS."



Each time you press A/V WINDOW +/-, the label changes:



- 9** Press RETURN.
The setting is complete.
When you select or display the video mode, the video label appears.

To label other input modes

Repeat steps 6 – 9.

To change a label

Same as above.

To return to the previous menu

Press A/V WINDOW +/- until the cursor points to "➤ MENU."
Then press RETURN.

To return to the main menu

Repeat the above, until you reach the main menu.

To return to the normal screen

Press MENU.

1-14. USING TIMER-ACTIVATED FUNCTIONS

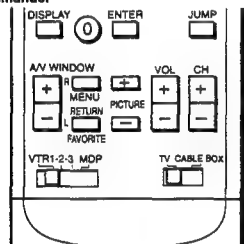
Setting DAYLIGHT SAVING

If you live in an area that uses daylight savings time, set DAYLIGHT SAVING to "YES" or "NO" depending on the season, before setting the current time. At the next daylight savings date, you will be able to automatically adjust all the time-related settings (CURRENT TIME, ON/OFF TIMER and CHANNEL BLOCK) simply by changing the DAYLIGHT SAVING setting.

When setting DAYLIGHT SAVING:

- **After the first Sunday in April (spring daylight savings)**
Set to "YES" before setting the current time.
Then, on the last Sunday in October (fall daylight savings), set to "NO."
All the time-related settings automatically move one hour back.
- **After the last Sunday in October (fall daylight savings)**
Set to "NO" before setting the current time.
Then, on the first Sunday in April (spring daylight savings), set to "YES."
All the time-related settings automatically move one hour ahead.

Remote Commander



Follow these instructions to set DAYLIGHT SAVING to "YES" or "NO."

- 1 Press MENU.
The main menu appears.



- 2 Press A/V WINDOW +/- until the cursor points to "TIME."

- 3 Press RETURN.
The time menu appears.



- 4 Press A/V WINDOW +/- until the cursor points to "DAYLIGHT SAVING."

- 5 Press RETURN.
The mode display turns red.

- 6 Press A/V WINDOW +/- to select "YES" or "NO."

- 7 Press RETURN.
The setting is complete.

To return to the previous menu
Press A/V WINDOW +/- until the cursor points to "> MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

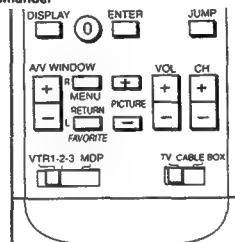
To return to the normal screen.
Press MENU.

Setting the clock — CURRENT TIME SET

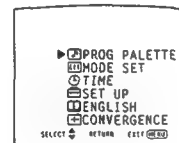
Follow these instructions to set the current time. The correct current time must be set in order to use the other time-related functions (DAYLIGHT SAVING, ON/OFF TIMER, CHANNEL BLOCK).

Example: Set the time to 3:15 PM, Monday.

Remote Commander



- 1 Press MENU.
The main menu appears.

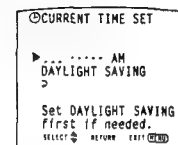


- 2 Press A/V WINDOW +/- until the cursor points to "TIME."

- 3 Press RETURN.
The time menu appears, and the cursor points to "CURRENT TIME SET."



- 4 Press RETURN again.
The CURRENT TIME SET screen appears, with a reminder to set DAYLIGHT SAVING.



If you do not need to set DAYLIGHT SAVING, press RETURN and continue from step 5.

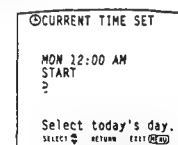
To set daylight saving

- Press A/V WINDOW +/- until the cursor points to "DAYLIGHT SAVING."
- Press RETURN.
The time menu appears, and the cursor points to "DAYLIGHT SAVING."
- Press RETURN.
- Press A/V WINDOW +/- to select "YES" or "NO."
- Press RETURN.
The setting is complete.

To set the time, press A/V WINDOW +/- until the cursor points to "CURRENT TIME SET"; press RETURN, then continue from step 5.

- 5 Press RETURN.
The CURRENT TIME SET screen appears, and the "SUN" display appears (red).

- 6 Press A/V WINDOW +/- to select "MON."
Each time you press A/V WINDOW +/-, the day changes consecutively.

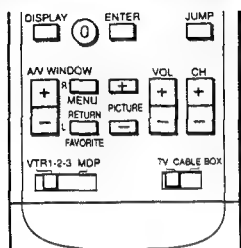


(Continued)

Setting the clock — CURRENT TIME SET

(Cont'd. from prev. page)

Remote Commander



- 7** Press RETURN.
The hour and am/pm displays turn red.

- 8** Press A/V WINDOW +/- to set "3:00PM."
Each time you press A/V WINDOW +/-, the hour changes in sequence beginning with "12:00AM."



- 9** Press RETURN.
The minute display turns red.

- 10** Press A/V WINDOW +/- to select "15" (minutes).
Each time you press A/V WINDOW +/-, the minutes change in sequence.



- 11** Press RETURN.
The cursor points to "START."

- 12** Check the actual time, and press RETURN to start the clock.
The setting is complete.

To reset the time

Display the CURRENT TIME SET screen and repeat steps 5 - 12.

To display the current time

Press DISPLAY.

To return to the previous menu

Press A/V WINDOW +/- until the cursor points to "➤ MENU." Then press RETURN.

To return to the main menu

Repeat the above, until you reach the main menu.

To return to the normal screen.

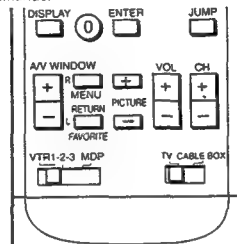
Press MENU.

Setting the ON/OFF TIMER

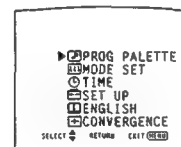
Follow these instructions to make the program of your choice appear on the screen at a specified time.

Example: Set the timer to turn on the projection TV every Monday through Friday at 1:30 AM for 3 hours, on channel 8, as PROGRAM 1. (You can set up to three programs.)

Remote Commander



- 1** Press MENU.
The main menu appears.



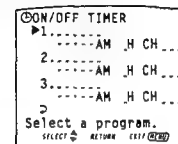
- 2** Press A/V WINDOW +/- until the cursor points to "TIME."

- 3** Press RETURN.
The time menu appears.



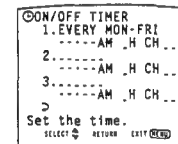
- 4** Press A/V WINDOW +/- until the cursor points to "ON/OFF TIMER."

- 5** Press RETURN.
The ON/OFF TIMER screen appears, and the cursor points to "1."

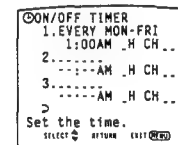


- 6** To set program 1, press RETURN.
(To set program 2 or 3, press A/V WINDOW +/- until the cursor points to that program; then press RETURN.)
The day input space turns red.

- 7** Press A/V WINDOW +/- to select "EVERY MON-FRI"; then press RETURN.
Each time you press A/V WINDOW +/-, the days of the week change as shown in Fig. 1 (p. 61).



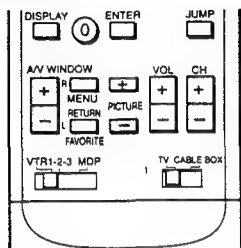
- 8** Press A/V WINDOW +/- to select "1:00AM"; then press RETURN.
Each time you press A/V WINDOW +/-, the hour changes in sequence.



(Continued)

Setting the ON-OFF TIMER (Cont'd from prev. page)

Remote Commander



- 9** Press A/V WINDOW +/- to select "30" (minutes); then press RETURN.
Each time you press A/V WINDOW +/-, the minutes change in sequence.

```

ON/OFF TIMER
1. EVERY MON-FRI
  1:30AM .H CH...
2. ....AM .H CH...
3. ....AM .H CH...
> Set the duration.
SELECT RETURN EXIT
  
```

- 10** Press A/V WINDOW +/- to select "3" (hour duration); then press RETURN.
Each time you press A/V WINDOW +/- the duration changes from "1" - "6" in sequence.

```

ON/OFF TIMER
1. EVERY MON-FRI
  1:30AM 3H CH...
2. ....AM .H CH...
3. ....AM .H CH...
> Set the channel.
SELECT RETURN EXIT
  
```

- 11** Press A/V WINDOW +/- to select "8" (channel); then press RETURN.
The TIMER/STAND BY lamp lights, indicating that the setting is complete.
Each time you press A/V WINDOW +/-, the channel number changes from 1 - 125 in sequence.

```

ON/OFF TIMER
1. EVERY MON-FRI
  1:30AM 3H CH 8
2. ....AM .H CH...
3. ....AM .H CH...
> Select a program.
SELECT RETURN EXIT
  
```

The display "TIMER WILL BE OFF" appears on the screen one minute before the timer duration ends.

To set program 2 or 3.
Press RETURN and repeat steps 6 - 11.

To erase an ON/OFF TIMER setting
Display the ON/OFF TIMER screen, select the setting you want to erase, and select a blank space for the day.
The ON/OFF TIMER setting is erased.

To enter a new ON/OFF TIMER setting
Display the ON/OFF TIMER screen and repeat steps 6 - 11.

To return to the previous menu
Press A/V WINDOW +/- until the cursor points to "> MENU."
Then press RETURN.

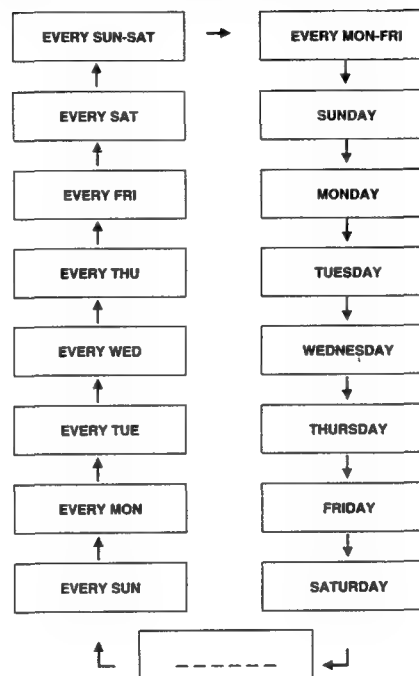
To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU.

Note
If you unplug the projection TV or a power failure occurs, both the clock and timer settings will be erased. Reset the current time; then set the timer.

Fig. 1

Selecting the day(s) of the week
When you press A/V WINDOW +, the days of the week appear in the following order:

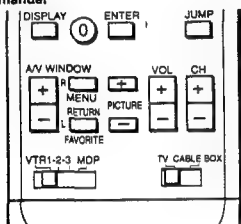


Setting CHANNEL BLOCK

Follow these instructions to prevent a channel from appearing on the screen during the time that you specify. You can use this function to prevent children from watching unsuitable programs.

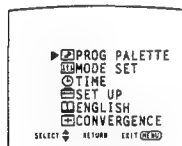
Example: Set CHANNEL BLOCK every Saturday at 4:30 PM for 1 hour, on Channel 12.

Remote Commander



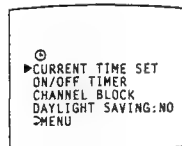
Note
If you have not set the current time, the "CHANNEL BLOCK" display is shaded and cannot be selected.

- 1 Press MENU.
The main menu appears.

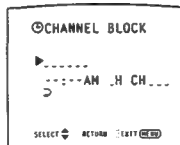


- 2 Press A/V WINDOW +/- until the cursor points to "TIME."

- 3 Press RETURN.
The time menu appears.

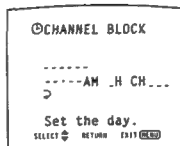


- 4 Press A/V WINDOW +/- until the cursor points to "CHANNEL BLOCK."



- 5 Press RETURN.
The CHANNEL BLOCK screen appears, and the cursor points to the day input space.

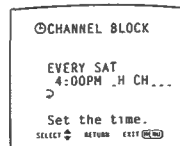
- 6 Press RETURN.
The day input space turns red.



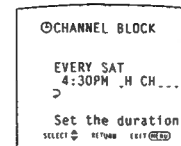
- 7 Press A/V WINDOW +/- to select "EVERY SAT"; then press RETURN.
Each time you press A/V WINDOW +/-, the days of the week change as shown in Fig. 1 (p. 61).



- 8 Press A/V WINDOW +/- to select "4:00PM"; then press RETURN.
Each time you press A/V WINDOW +/-, the hour changes in sequence.



- 9 Press A/V WINDOW +/- to select "30" (minutes); then press RETURN.
Each time you press A/V WINDOW +/-, the minutes change in sequence.



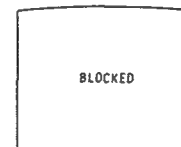
- 10 Press A/V WINDOW +/- to select "1" (hour duration); then press RETURN.
Each time you press A/V WINDOW +/-, the duration changes from "1" - "6" in sequence.



- 11 Press A/V WINDOW +/- to select "12" (channel); then press RETURN.
The setting is complete.
Each time you press A/V WINDOW +/-, the channel number changes from "1" - "125" in sequence.



At the specified time, "BLOCKED" appears in red on the screen, and the picture of the specified channel is blocked and the sound is muted.



To erase a CHANNEL BLOCK setting

Display the CHANNEL BLOCK screen and select a blank space for the day.
The CHANNEL BLOCK setting is erased.

To enter a new CHANNEL BLOCK setting

Display the CHANNEL BLOCK screen and repeat steps 4 - 10. (You can only set one CHANNEL BLOCK at a time.)

To return to the previous menu

Press A/V WINDOW +/- until the cursor points to "MENU".
Then press RETURN.

To return to the main menu

Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU.

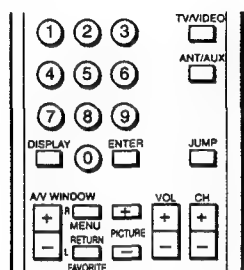
Note

If the ON/OFF TIMER is set for an overlapping time (pp. 59 - 61), the later time setting takes precedence. For example, if CHANNEL BLOCK is set for 2:00 PM and ON/OFF TIMER is set for 3:00 PM, ON/OFF TIMER will take effect at 3:00 PM.

1-15. SETTING FAVORITE CHANNEL

By setting FAVORITE CHANNEL, you can select the channels you use most frequently (up to seven channels) simply by pressing RETURN.

Remote Commander



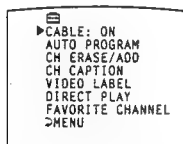
Follow these instructions to set the channels.

- 1 Press MENU.
The main menu appears.



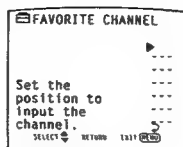
- 2 Press A/V WINDOW +/- until the cursor points to "SET UP."

- 3 Press RETURN.
The set up menu appears.



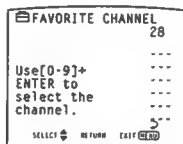
- 4 Press A/V WINDOW +/- until the cursor points to "FAVORITE CHANNEL."

- 5 Press RETURN.
The FAVORITE CHANNEL screen appears, and the cursor points to the first channel position.



- 6 Press A/V WINDOW +/- to select the channel position; then press RETURN.

- 7 Press 0 - 9 and ENTER to set the channel number.



- 8 Press RETURN.
The setting is complete.

To set other channels
Repeat steps 6 - 8.

To erase a favorite channel setting
Press A/V WINDOW +/- until the cursor points to the channel number you want to erase; press RETURN, then press 0 and ENTER.

To reset a favorite channel setting
Display the FAVORITE CHANNEL screen and repeat steps 6 - 8.

To return to the previous menu
Press A/V WINDOW +/- until the cursor points to "MENU."
Then press RETURN.

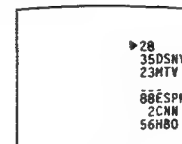
To return to the main menu
Repeat the above, until you reach the main menu.

To return to the normal screen.
Press MENU.

Selecting a favorite channel

After setting the channels, follow these instructions to select the channel you want to watch.

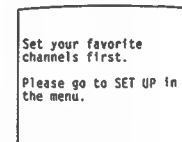
- 1 Press RETURN.
The FAVORITE CHANNEL display appears.



Note
If you have set channel captions (pp. 53 - 54), the captions appear with the channel numbers.

- 2 Press A/V WINDOW +/- to select the channel you want to watch; then press RETURN.
The channel is selected.

If you press RETURN on the Remote Commander before setting FAVORITE CHANNEL, this screen appears.



Follow steps 1 - 8 to set your favorite channels, and then make the selection.

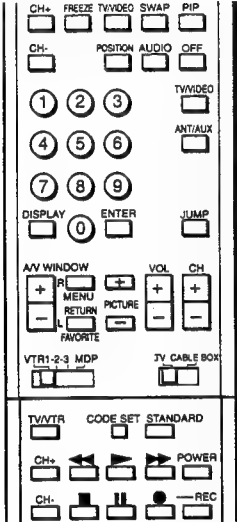
1-16. USING THE PRE-PROGRAMMED REMOTE COMMANDER

You can operate other video equipment (such as VCRs, video disc players and cable boxes) that have an infrared remote detector with this supplied Remote Commander.

Operating Sony video equipment

Follow these instructions to operate Sony video cassette recorders (Beta, 8 mm and VHS) and video disc players (including multi-disc players).

Remote Commander
(with video control cover open)



1 Set the VTR1-2-3 MDP selector according to the video equipment you want to operate.

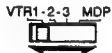


Fig. 2: Video equipment settings

If you want to operate a:	set to:
Beta, ED Beta VCR	VTR 1
8 mm VCR	VTR 2
VHS VCR	VTR 3
Video disc player	MDP

2 Use the video operating buttons to control the connected equipment.

Fig. 3: Operating a VCR (VTR1, 2, 3)

To turn on or off	Press POWER.
To change channels (when watching TV programs through the VCR's tuner)	Press CH +/-
To record	Press ● and REC simultaneously.
To play	Press ►
To stop	Press ■.
To fast forward	Press ►►
To rewind the tape	Press ◄◄.
To pause	Press ||. To resume normal playback, press again.
To search the picture forward and backward	Keep pressing ►► or ◄◄ during playback. To resume normal playback, release the button.
To change input mode	Press TV/VTR.

Fig. 4: Operating a Video Disc Player (MDP)

To turn on or off	Press POWER.
To play	Press ►
To stop	Press ■.
To pause	Press ||. To resume normal playback, press again. Note This function is effective only for CAV (standard-play disc). With CLV (extended-play disc), the projection TV goes off (standby mode) if you press ||.
To search the picture forward and backward	Keep pressing ►► or ◄◄ during playback. To resume normal playback, release the button.

Notes

- If the video equipment does not have a certain function, the corresponding button on this Remote Commander will not operate.
- If you set another manufacturer's code to a VTR1-2-3 MDP selector position (pp. 68 – 69), you must also set the Sony code to operate Sony equipment.

Caution

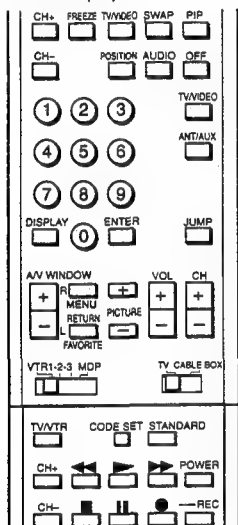
When you replace the batteries, do so within approximately 30 minutes. Otherwise the settings you made under the Pre-Programmed function (pp. 68 – 70) may be erased.

Operating non-Sony or Sony video equipment

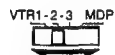
Follow these instructions to set the manufacturer's code, which will enable you to operate non-Sony and Sony video equipment with the pre-programmed Remote Commander.

Example: Operate an RCA video cassette recorder connected to the VIDEO 2 IN jacks.

Remote Commander
(with video control cover open)



1 Set the VTR1-2-3 MDP selector to VTR2.



Note

To use another manufacturer's equipment besides a Sony VCR, set the selector to a position not being used for your Sony video equipment.

2 While pressing CODE SET, press 0, 7 and ENTER to set RCA's code number. (For manufacturer code numbers, see Figs. 5, 6 and 7 on p. 69.)



3 Use the video operating buttons to operate the connected equipment. (see Fig. 3 on p. 66 and Fig. 4 on p. 67.)

Fig. 5: VCR manufacturer code numbers

MANUFACTURER	CODE
SONY	01, 02, 03
CANON	05
EMERSON	22, 30, 33
FISHER	10, 11, 12, 15
FUNAI	29
GENERAL ELECTRIC	05, 08
GOLDSTAR	25
HITACHI	07, 08, 36
JVC	16, 35
MAGNAVOX	05, 06, 09
MITSUBISHI	18, 19, 26, 27
MULTITECH	29
NEC	16, 23, 31
PANASONIC	05, 06
PHILCO	05, 06
PHILIPS	05, 06, 09
QUASAR	05, 06
RCA	07, 08
SAMSUNG	24, 32
SANYO	11, 15
SCOTT	21
SHARP	13, 14
SHINTOM	34
SYLVANIA	05, 06, 09
SYMPHONIC	29
TEKNIKA	28, 29
TOSHIBA	20, 21
TOTE VISION	25
ZENITH	17

Fig. 6: MDP manufacturer code numbers

MANUFACTURER	CODE
SONY	04
KENWOOD	58
MAGNAVOX	52
MARANZ	54
MITSUBISHI	51
PANASONIC	55
PHILIPS	52
PIONEER	51
RCA	51
SANYO	57
SHARP	56
YAMAHA	53

Fig. 7: Sony Equipment and Code Numbers

SONY EQUIPMENT	CODE
Beta, ED Beta VCR	01
8 mm VCR	02
VHS VCR	03
Video disc player	04

Note

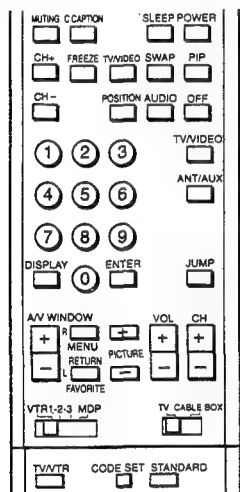
In some rare cases, you may not be able to operate your non-Sony video equipment with the supplied Remote Commander. This is because your equipment may use a code that is not provided with this Remote Commander. In this case, please use the equipment's own remote control unit.

Operating a cable converter box

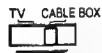
Follow these instructions to set the manufacturer's code, which will enable you to operate a connected cable converter box with the pre-programmed Remote Commander.

Example: Operate a connected Zenith cable converter box.

Remote Commander
(with video control cover open)



- 1 Set the TV/CABLE BOX selector to CABLE BOX.



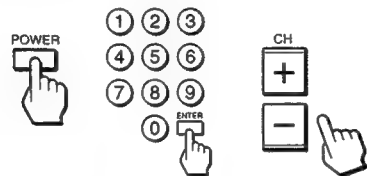
Notes

- If more than one code number is listed, try entering them one by one, until you come to the correct code for your equipment.
- If you enter a new code number, the code number you previously entered at that setting is erased.
- In some rare cases, your equipment may use a code that is not provided with this Remote Commander and you may not be able to operate your cable converter box with the supplied Remote Commander. In this case, use the equipment's own remote control unit.

- 2 While pressing CODE SET, press 6 and 8 (Zenith's code number — see Fig. 8) and ENTER.



- 3 Use the projection TV control buttons (POWER, 0-9, ENTER and CH +/-) to operate the cable converter box.



To return to the normal screen

Set the TV/CABLE BOX selector to TV; then use the projection TV control buttons to control the projection TV.

For more details on operating the cable box
Refer to the operating instructions that come with the cable box.

Fig. 8: Cable box manufacturer code numbers

MANUFACTURER	CODE
JERROLD	60, 61, 62, 63, 64, 65
PIONEER	69, 70
SCIENTIFIC ATLANTA	66, 67
TOCOM	71, 72
ZENITH	68

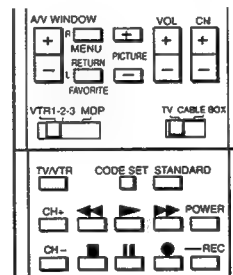
Selecting a VCR mode directly — DIRECT PLAY

Follow these instructions to switch from TV to VCR mode by simply pressing the ► (playback) button on the supplied Remote Commander.

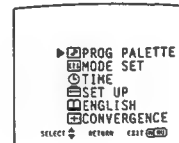
Example: Connect your VCR to the VIDEO 2 IN jacks, and set the VTR1-2-3 MDP selector to VTR2. When you press ►, the input mode changes to the VCR connected to the VIDEO 2 IN jacks.

After completing the steps below, the VTR selector position is retained in the projection TV's memory.

Remote Commander (with video control cover open)

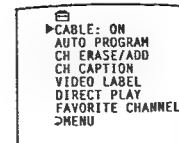


- 1 Press MENU.
The main menu appears.



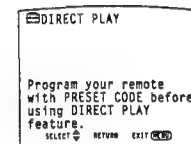
- 2 Press AV WINDOW +/- until the cursor points to "SET UP".

- 3 Press RETURN.
The set up menu appears.



- 4 Press AV WINDOW +/- until the cursor points to "DIRECT PLAY."

- 5 Press RETURN.
A message screen appears.



Note

This screen reminds you to set the manufacturer's code, if you have not already done so (pp. 68-69).

- 6 Press RETURN again.
The DIRECT PLAY screen appears.



- 7 Press AV WINDOW +/- until the cursor points to the video input mode. (When the video equipment is connected to VIDEO 1 IN, select "VIDEO1.")

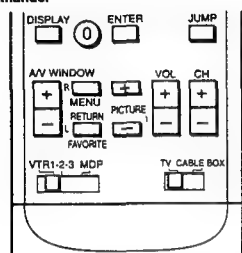
- 8 Press RETURN.
The mode display turns red.

(Continued)

1-17. TROUBLESHOOTING

Selecting a VCR mode directly – DIRECT PLAY (Cont'd. from prev. page)

Remote Commander



- 9** Press A/V WINDOW +/- to select the VTR selector mode you have set on the Remote Commander. (When the VTR1-2-3 MDP selector is set to VTR2, select "VTR 2.")
Each time you press A/V WINDOW +/-, "VTR 1," "VTR 2," "VTR 3," "MDP" and "OFF" appear in sequence.



- 10** Press RETURN.
The direct play setting is complete.



To set direct play for other connected video equipment
Repeat steps 7 – 10.

To return to the previous menu
Press A/V WINDOW +/- until the cursor points to "➤ MENU."
Then press RETURN.

To return to the main menu
Repeat the above, until you reach the main menu.

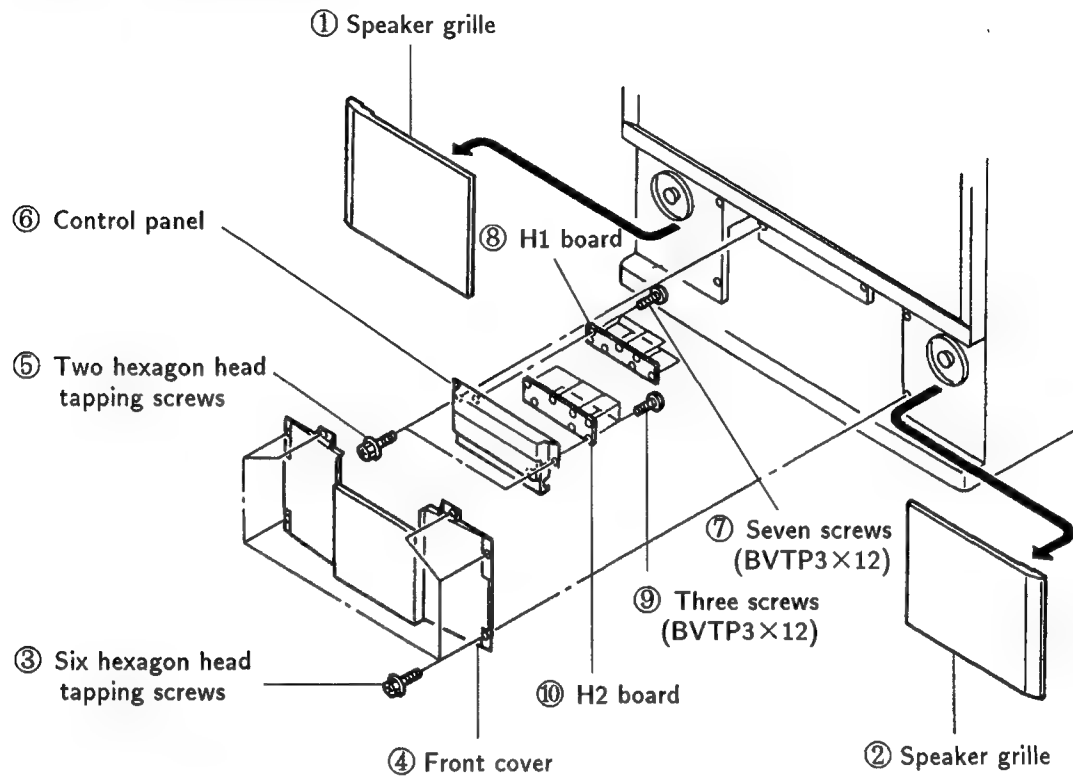
To return to the normal screen.
Press MENU.

Disturbances in picture and sound can often be eliminated by checking the symptoms and following the suggestions listed here. If the problem still cannot be solved, contact your nearest service facility.

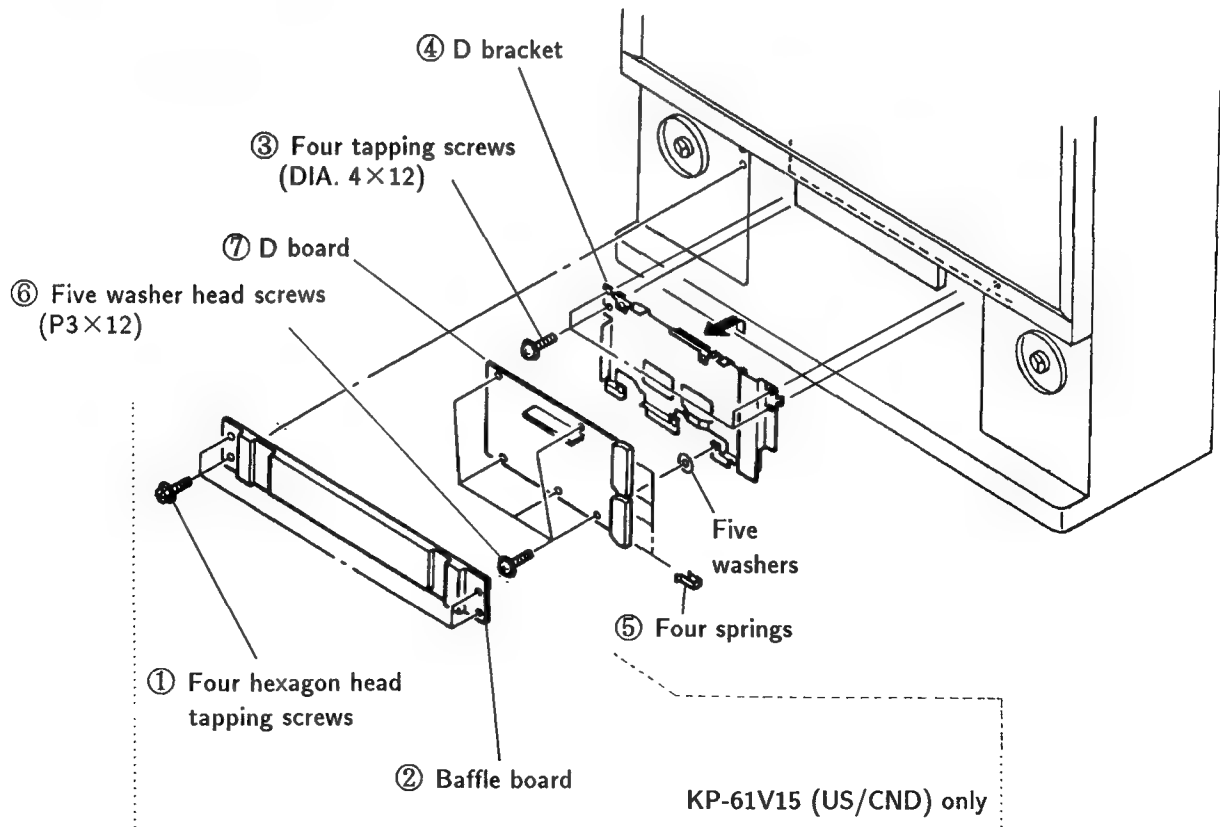
Symptom	Possible causes and remedies
No picture (screen not lit), no sound	<ul style="list-style-type: none"> Make sure POWER is switched on. Check the power cord connection. Check that the TV/VIDEO and VTR1-2-3 MDP controls are set correctly. Make sure that the TV/CABLE BOX selector is set to TV.
Poor or no picture (screen not lit), good sound	<ul style="list-style-type: none"> Adjust the picture using the VIDEO screen (pp. 44 – 47). Check the antenna/cable connections. Adjust the color registration (pp. 24 – 25).
Good picture, no sound	<ul style="list-style-type: none"> Press VOLUME + on the projection TV or VOL + on the Remote Commander. Press MUTE on the Remote Commander. Check the MTS setting (p. 51). Check that the TV/VIDEO and VTR1-2-3 MDP controls are set correctly. Make sure SPEAKER is set correctly (p. 52).
No color for color programs	<ul style="list-style-type: none"> Check the HUE and COLOR settings (pp. 44 – 45).
Snow and noise only	<ul style="list-style-type: none"> Check that it is an active or correct channel. Check the cable setting. Check antenna/cable connections.
 Dotted lines or stripes	This is often caused by local interference (for example, cars, neon signs and hairdryers). Adjust the telescopic aerial for minimum interference.
 Double images or ghosts	Reflections from nearby mountains or buildings often cause this problem. Connecting a highly directional outdoor antenna or a CATV cable may improve the picture.
Remote control does not operate	<ul style="list-style-type: none"> Check the battery in the Remote Commander.
No picture and/or sound for the connected equipment	<ul style="list-style-type: none"> Check that the TV/VIDEO button is set correctly. Check that the connections are properly made. Check that the power of the connected equipment is turned on. Check that the connected equipment is set correctly.
Try another channel. It could be station trouble.	

SECTION 2 DISASSEMBLY

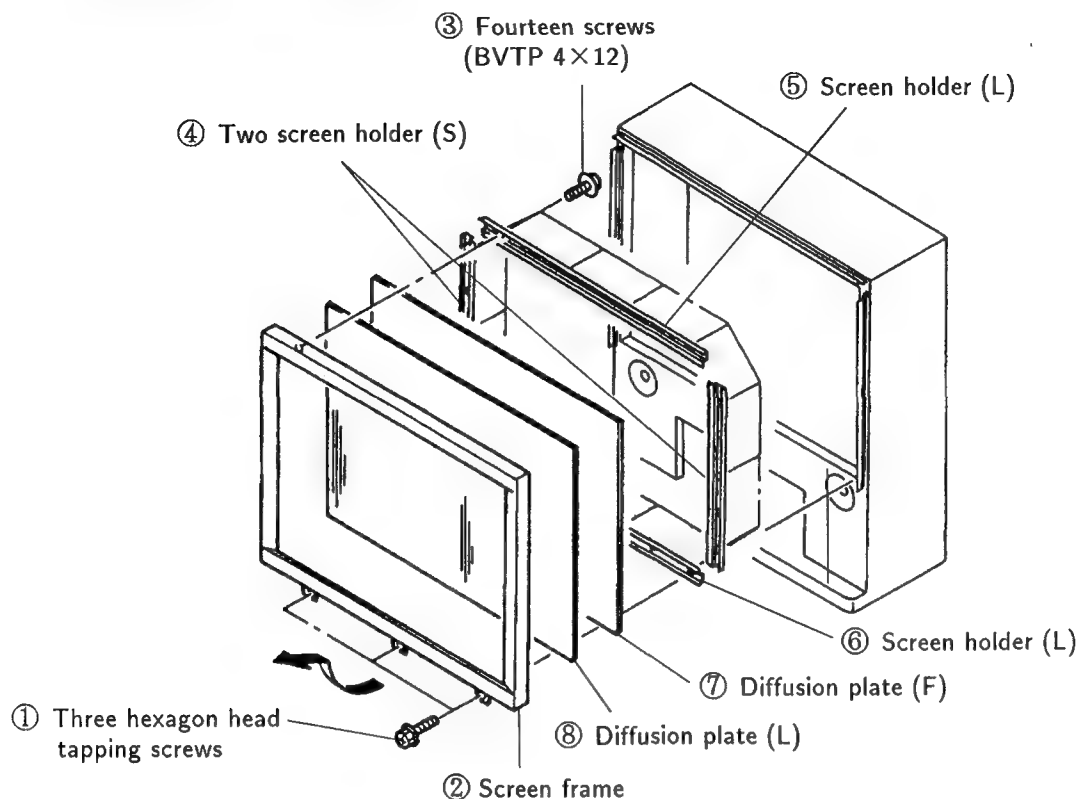
2-1. H1 AND H2 BOARDS REMOVAL



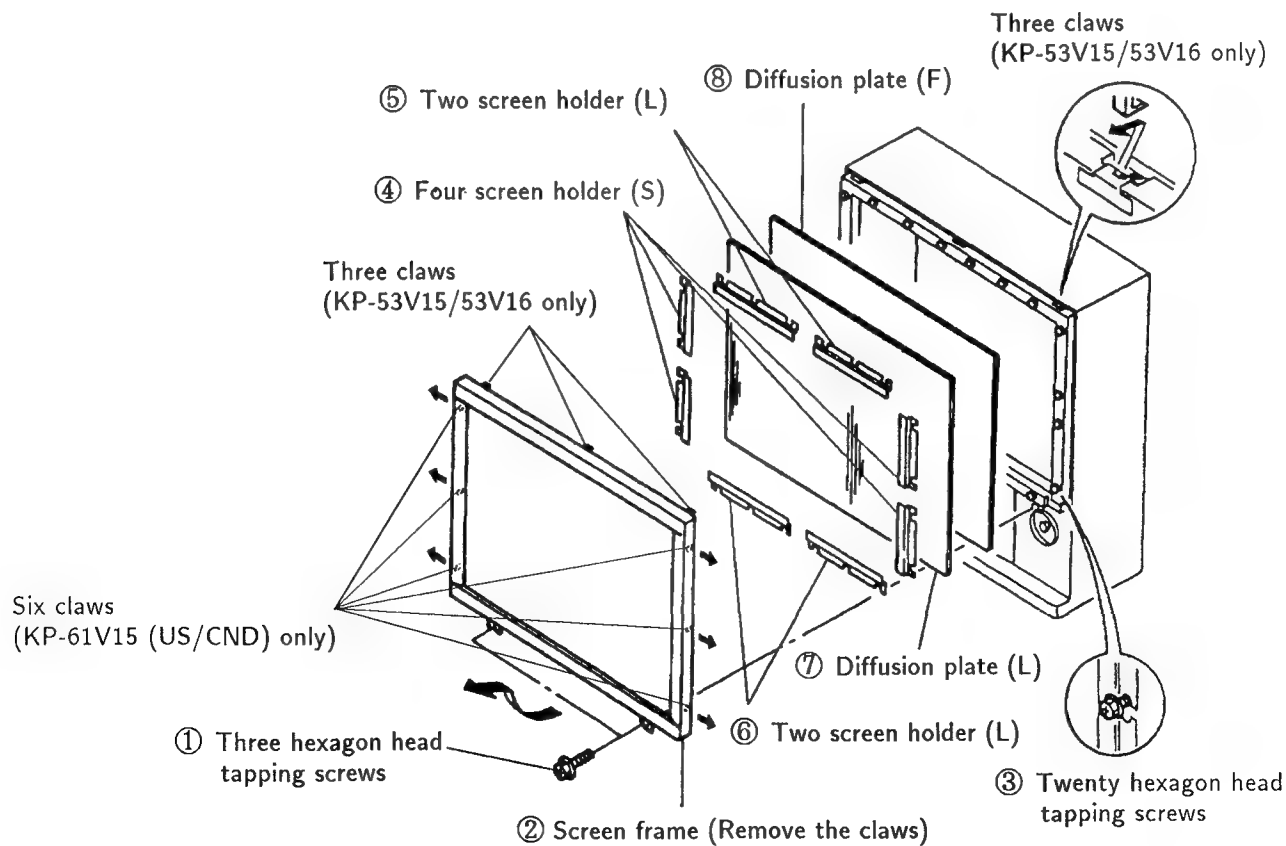
2-2. D BOARD REMOVAL



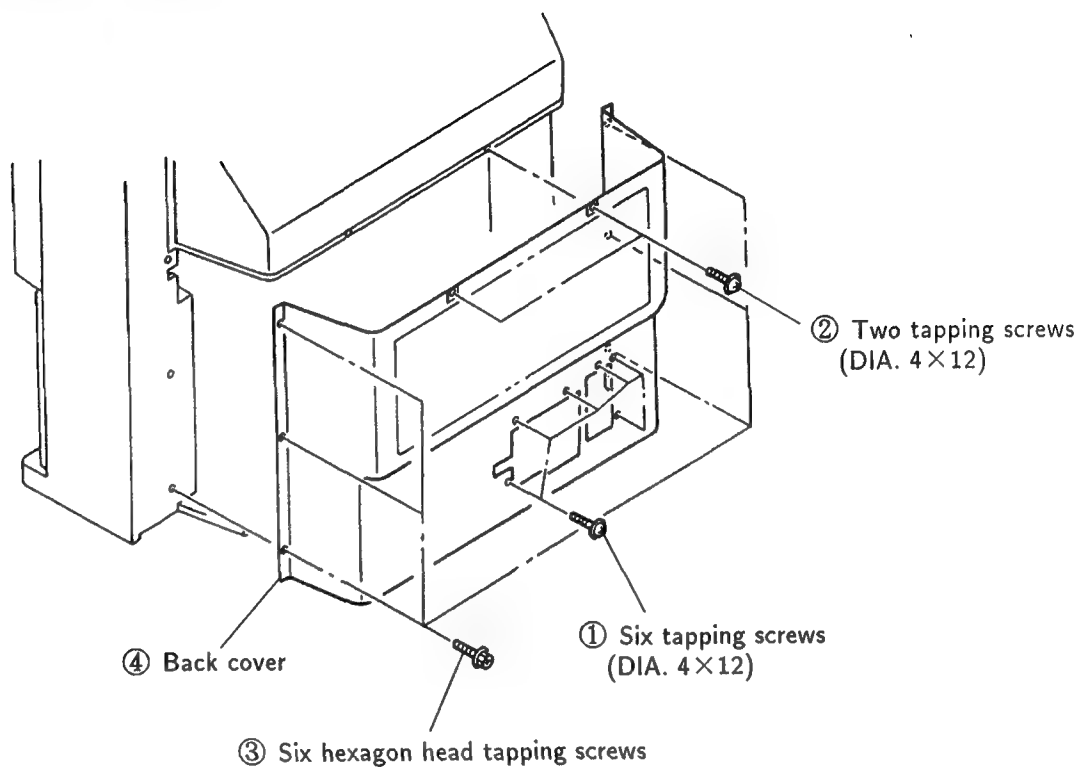
2-3-1. DIFFUSION PLATE REMOVAL (KP-46V15 (US/CND)/46V16 only)



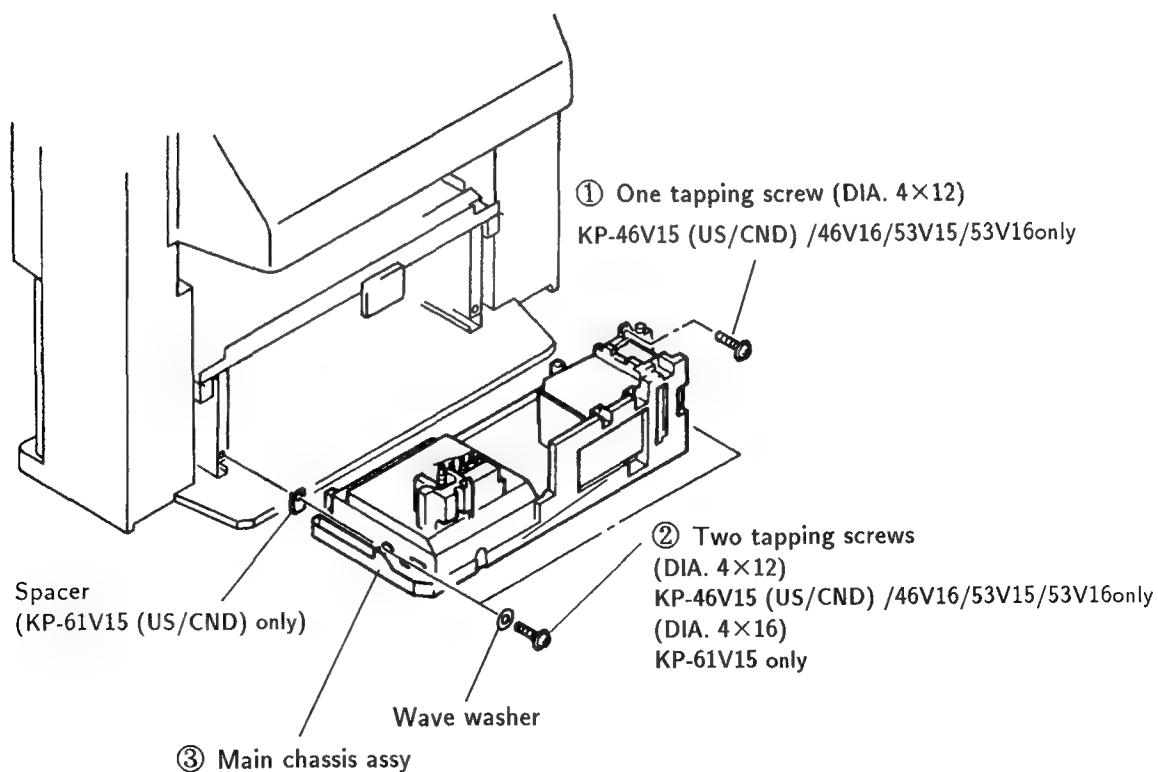
2-3-2. DIFFUSION PLATE REMOVAL (KP-53V15/53V16/61V15 (US/CND) only)



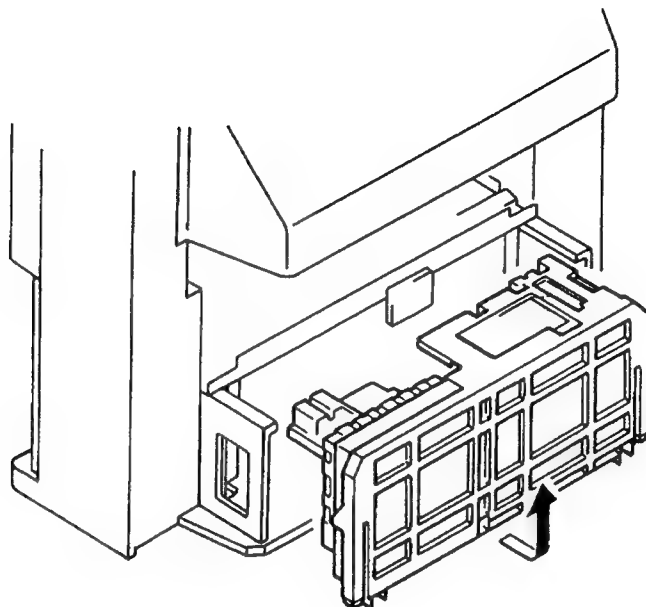
2-4. BACK COVER REMOVAL



2-5. MAIN CHASSIS ASSY REMOVAL



2-6. SERVICE POSITION



NOTES INSERTED IN SERVICE POSITION SECTION

Service Position Procedure

- (1) Remove the path locks where the harness comes into.
(MAIN bracket, G shield)
- (2) Remove the following connectors before removing the main bracket.
* HV grounding lead, G shield grounding lead, uT35 grounding lead (uT board), V-2 connector (V board).
- (3) Remove the main bracket. (Take care as the connector leads linking to the C and Z boards are considerably short.)
(MAIN bracket, G shield)

- (4) When pulling out the main bracket with power ON, be sure to connect the connectors removed.

* HV grounding lead, G shield grounding lead, uT35 grounding lead (uT board).

In case that grounding lead (Black) of HV Block is not connected with chassis grounding, it causes arcing of CRT and it is dangerous.

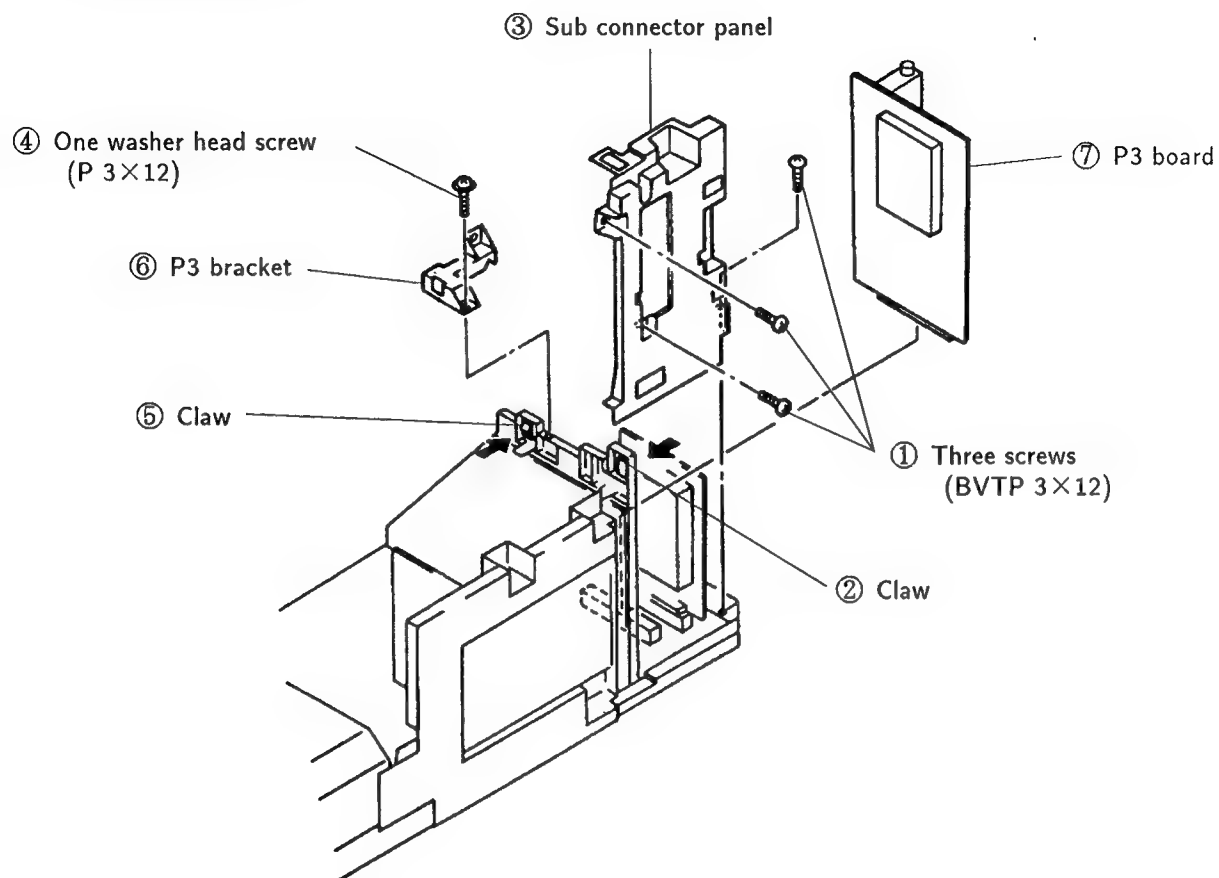
Be sure to connect grounding lead of HV Block with chassis grounding.

CONNECTOR CABLES

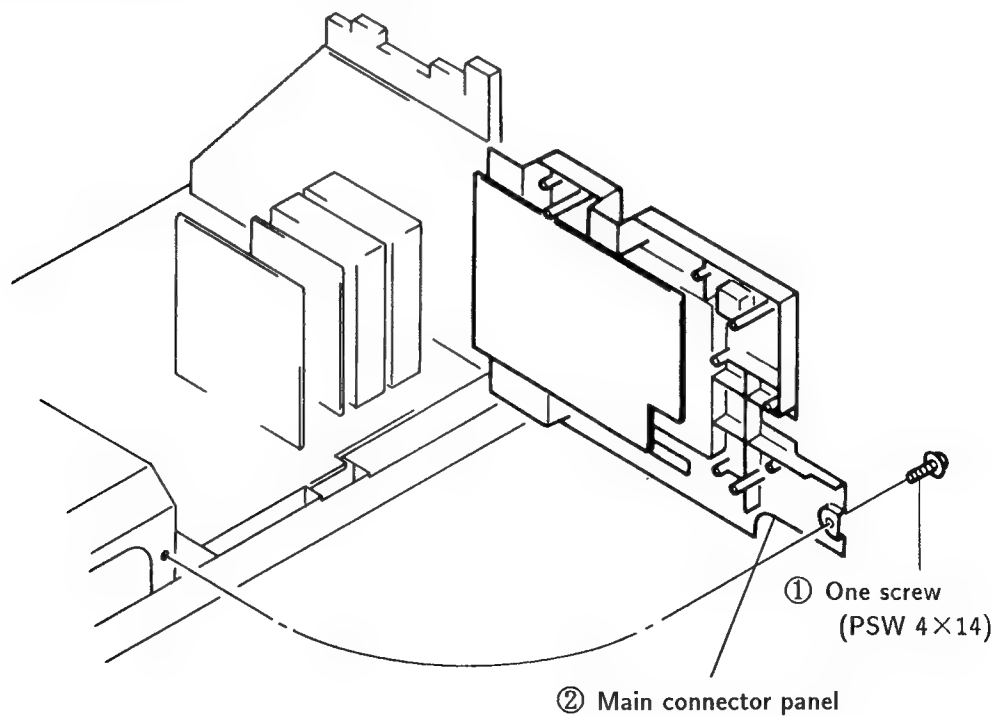
※ In order to put the set in the service position, use the extension connector cables below.

<table> <tr> <th>Parts No.</th><th>Connection</th></tr> <tr> <td>1-941-897-38</td><td>CB-4 (G-4)</td></tr> </table> <p>1: Brown 2: — 3: — 4: Yellow 5: Green 6: — 7: — 8: Gray</p> <p>White L=140 White</p>	Parts No.	Connection	1-941-897-38	CB-4 (G-4)	<table> <tr> <th>Parts No.</th><th>Connection</th></tr> <tr> <td>1-941-897-43</td><td>CR-15 (A-15)</td></tr> </table> <p>1: White/Gray 2: Gray/Shield 3: Orange 4: Red/Gray 5: Gray/Shield</p> <p>Red L=180 Red</p>	Parts No.	Connection	1-941-897-43	CR-15 (A-15)
Parts No.	Connection								
1-941-897-38	CB-4 (G-4)								
Parts No.	Connection								
1-941-897-43	CR-15 (A-15)								
<table> <tr> <th>Parts No.</th><th>Connection</th></tr> <tr> <td>1-941-897-39</td><td>CG-16 (A-16)</td></tr> </table> <p>1: White/Gray 2: Gray/Shield 3: Orange 4: Red/Gray 5: Gray/Shield</p> <p>Yellow L=110 Yellow</p>	Parts No.	Connection	1-941-897-39	CG-16 (A-16)	<table> <tr> <th>Parts No.</th><th>Connection</th></tr> <tr> <td>1-941-897-44</td><td>ZR-1 (D-1)</td></tr> </table> <p>1: Brown 2: Red 3: Orange 4: Yellow 5: Green 6: Blue 7: Violet</p> <p>White L=150 White</p>	Parts No.	Connection	1-941-897-44	ZR-1 (D-1)
Parts No.	Connection								
1-941-897-39	CG-16 (A-16)								
Parts No.	Connection								
1-941-897-44	ZR-1 (D-1)								
<table> <tr> <th>Parts No.</th><th>Connection</th></tr> <tr> <td>1-941-897-40</td><td>ZG-19 (A-19)</td></tr> </table> <p>1: Green 2: — 3: Black 4: — 5: Brown</p> <p>White L=150 White</p>	Parts No.	Connection	1-941-897-40	ZG-19 (A-19)	<table> <tr> <th>Parts No.</th><th>Connection</th></tr> <tr> <td>1-941-897-45</td><td>A-21 (CRT BRACKET)</td></tr> </table> <p>1: Black 2: Black</p> <p>White L=40 White</p>	Parts No.	Connection	1-941-897-45	A-21 (CRT BRACKET)
Parts No.	Connection								
1-941-897-40	ZG-19 (A-19)								
Parts No.	Connection								
1-941-897-45	A-21 (CRT BRACKET)								
<table> <tr> <th>Parts No.</th><th>Connection</th></tr> <tr> <td>1-941-897-41</td><td>ZR-18 (A-18)</td></tr> </table> <p>1: Red 2: — 3: Black 4: — 5: Brown</p> <p>White L=150 White</p>	Parts No.	Connection	1-941-897-41	ZR-18 (A-18)	<table> <tr> <th>Parts No.</th><th>Connection</th></tr> <tr> <td>1-941-897-46</td><td>V-2 (ZR-3)</td></tr> </table> <p>1: Brown 2: — 3: Red</p> <p>Red L=200 Red</p>	Parts No.	Connection	1-941-897-46	V-2 (ZR-3)
Parts No.	Connection								
1-941-897-41	ZR-18 (A-18)								
Parts No.	Connection								
1-941-897-46	V-2 (ZR-3)								
<table> <tr> <th>Parts No.</th><th>Connection</th></tr> <tr> <td>1-941-897-42</td><td>ZG-2 (D-2)</td></tr> </table> <p>1: — 2: Red 3: Orange 4: Yellow 5: Green 6: Blue 7: Violet 8: Gray</p> <p>White L=130 White</p>	Parts No.	Connection	1-941-897-42	ZG-2 (D-2)	<table> <tr> <th>Parts No.</th><th>Connection</th></tr> <tr> <td>1-941-897-47</td><td>A-3 (YG-3)</td></tr> </table> <p>1: Red 2: White 3: Gray/Shield 4: Black</p> <p>Red L=100 Red</p>	Parts No.	Connection	1-941-897-47	A-3 (YG-3)
Parts No.	Connection								
1-941-897-42	ZG-2 (D-2)								
Parts No.	Connection								
1-941-897-47	A-3 (YG-3)								

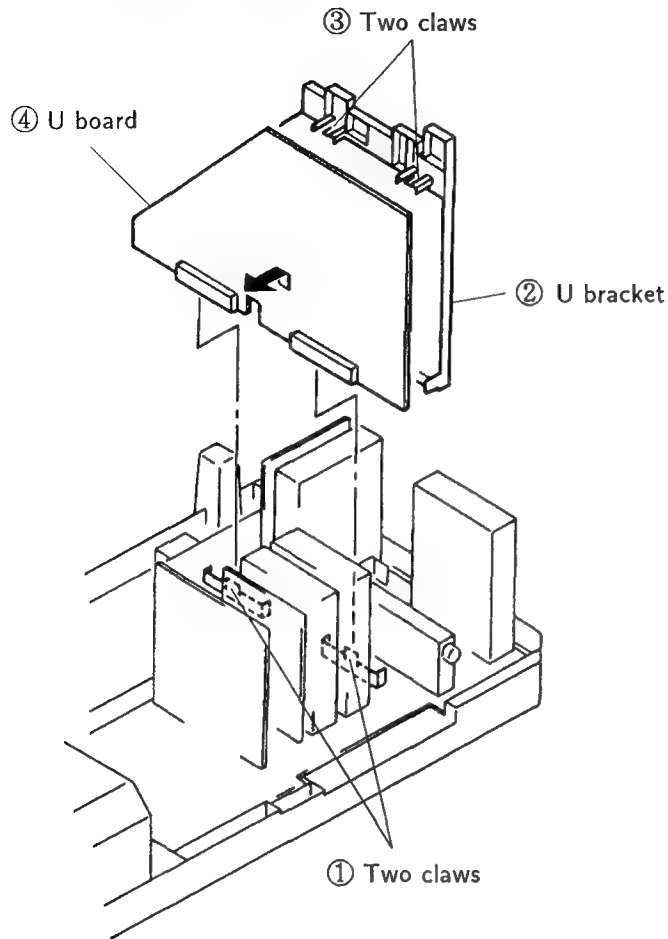
2-7. P3 BOARD REMOVAL



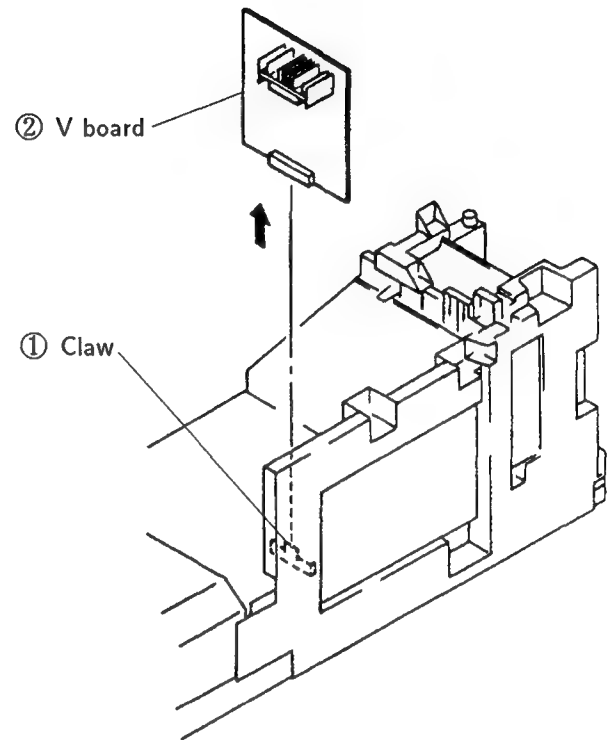
2-8. MAIN CONNECTOR PANEL REMOVAL



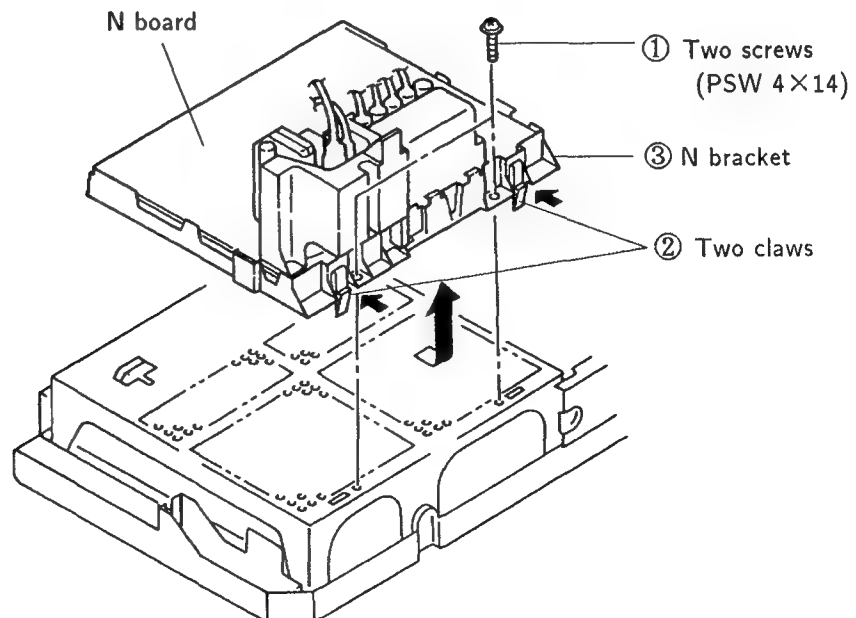
2-9. U BOARD REMOVAL



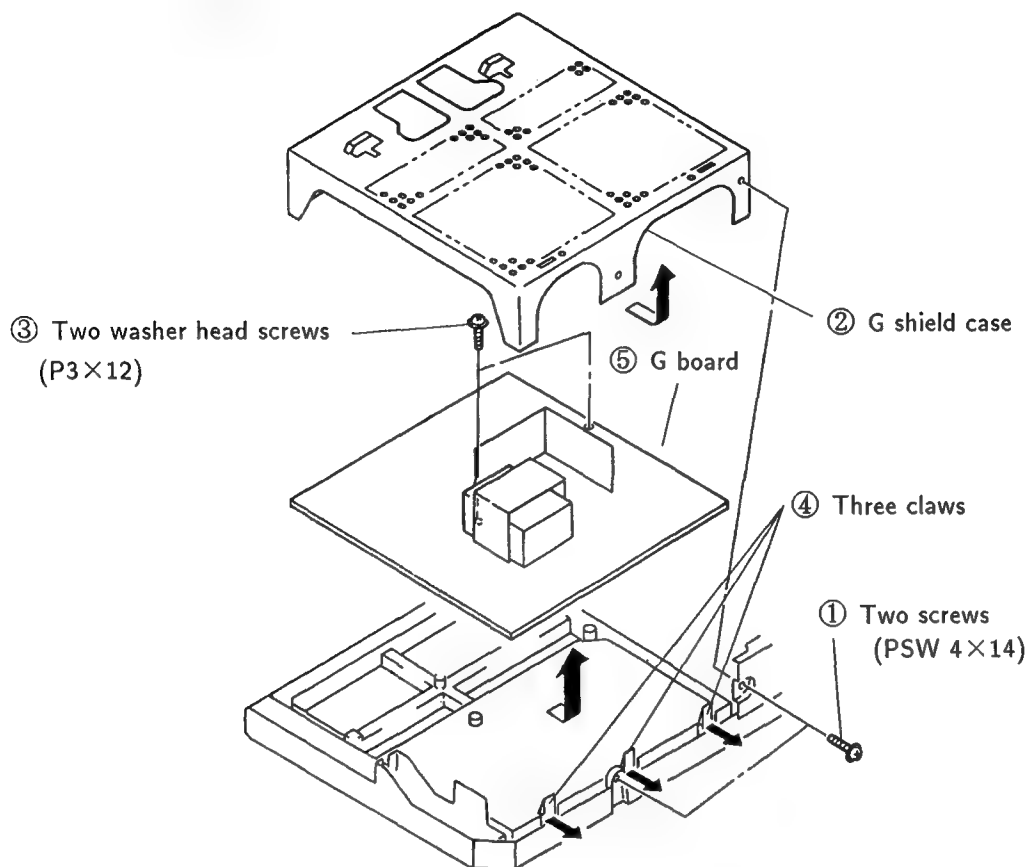
2-10. V BOARD REMOVAL



2-11. N BRACKET REMOVAL

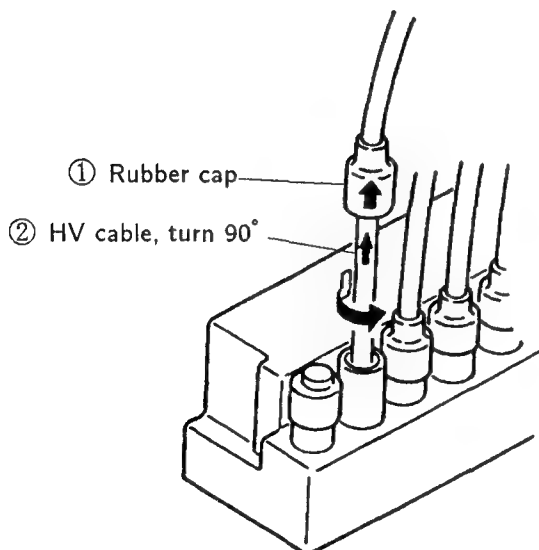


2-12. G BOARD REMOVAL

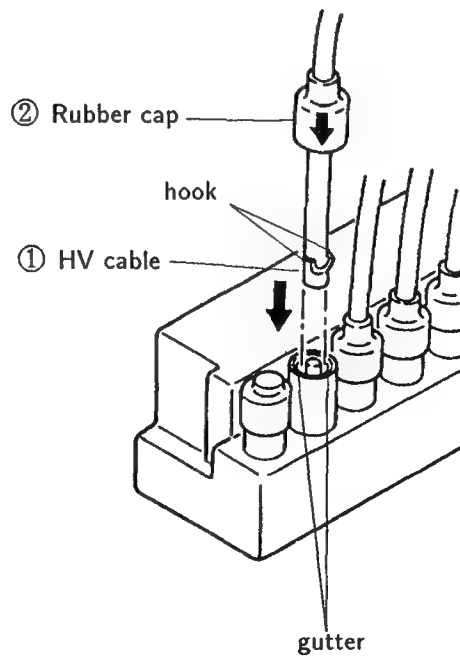


2-13. HIGH-VOLTAGE CABLE INSTALLATION AND REMOVAL

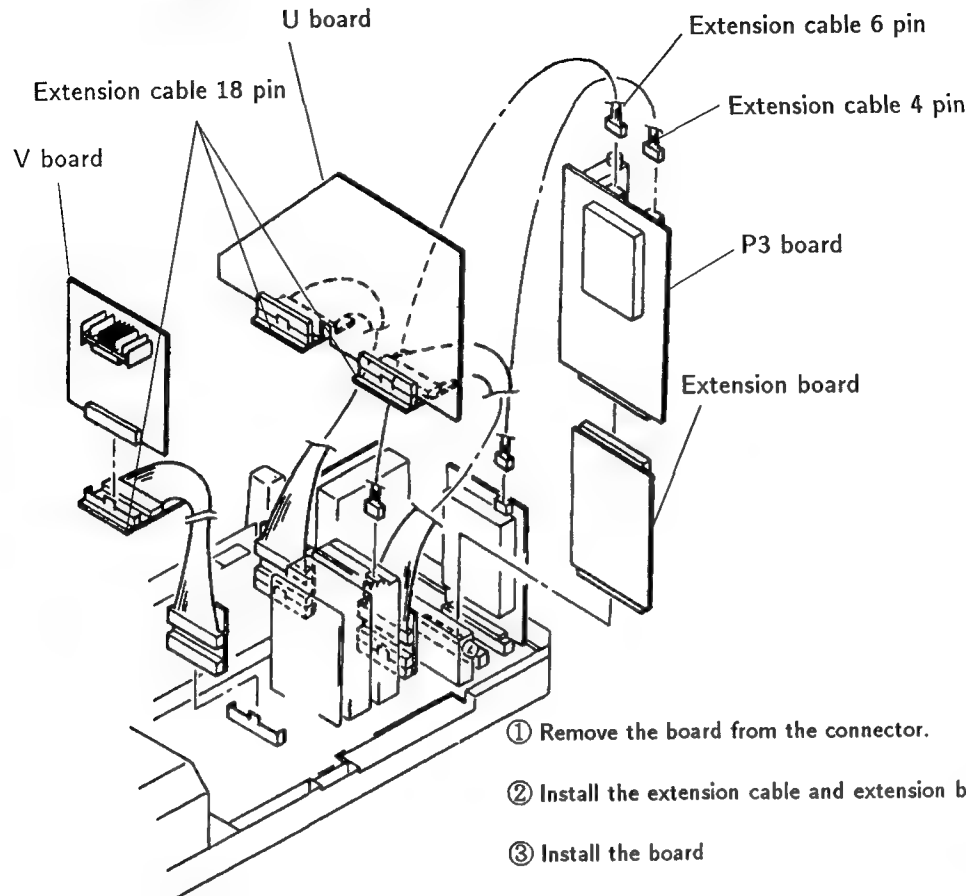
(1) Remover



(2) Installation

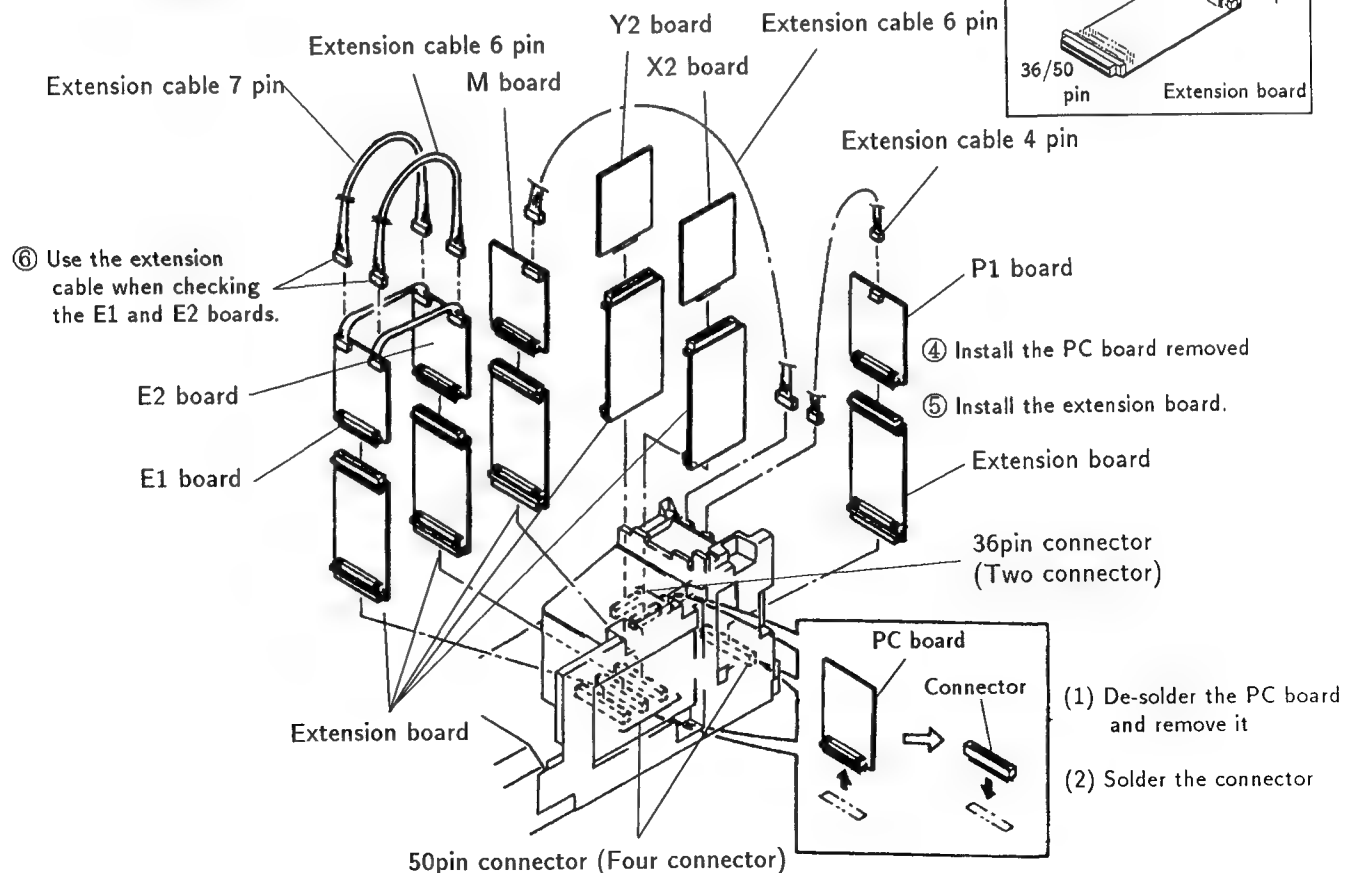


2-14-1. CONNECTOR CABLE

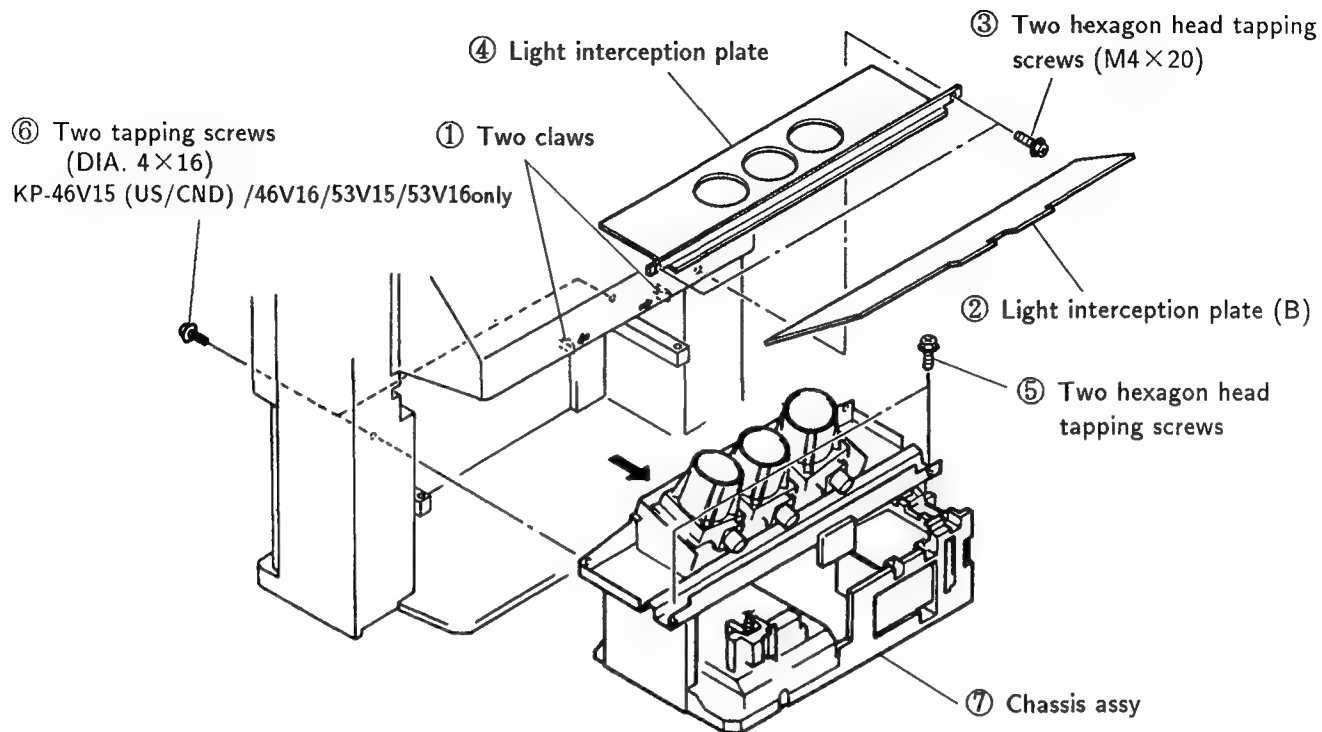


Exterior	
Extension cable	
4 pin	1-941-891-33
6 pin	1-941-891-31
7 pin	1-941-891-32
18 pin	3-702-558-01
10 pin	3-702-557-01
36pin connector	3-702-561-01
50pin connector	3-702-560-01
36/50 pin	3-702-559-01
Extension board	

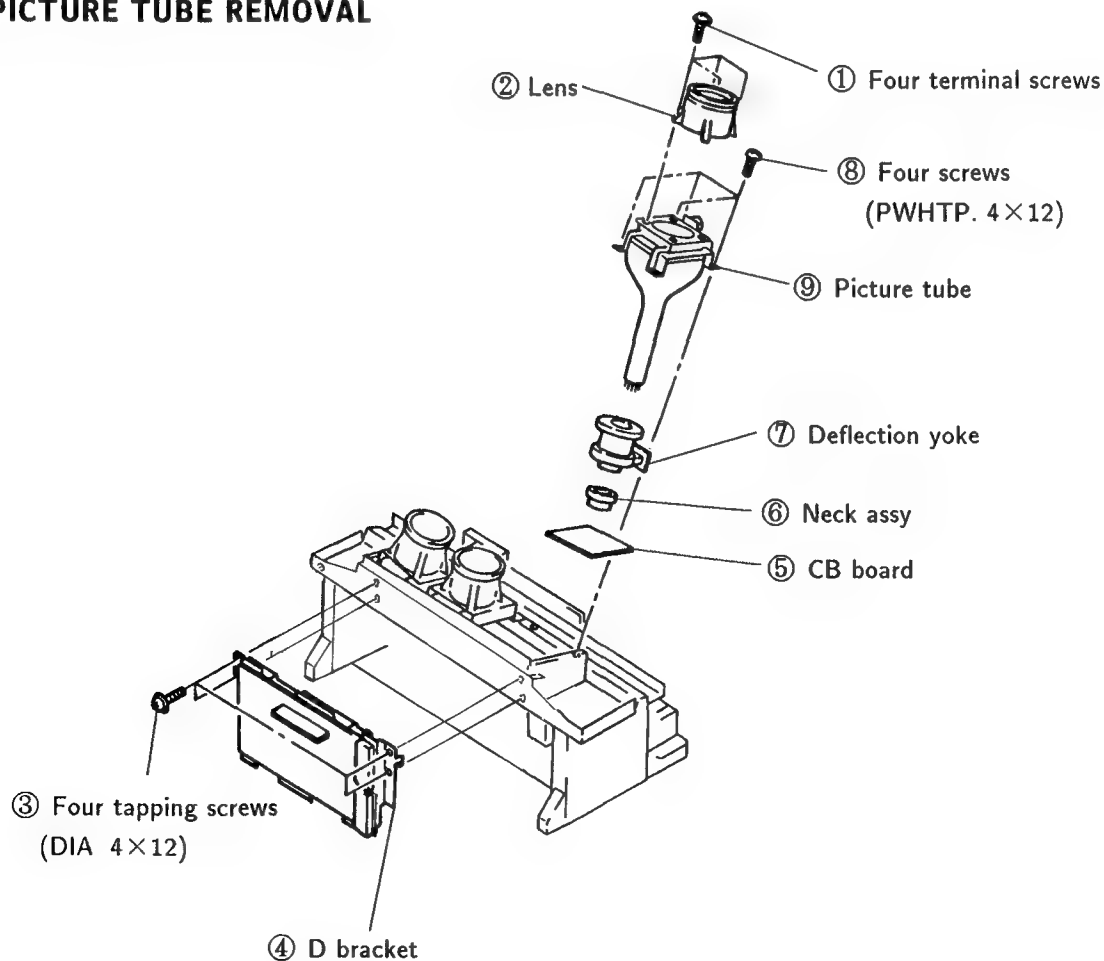
2-14-2. CONNECTOR CABLE



2-15. CHASSIS ASSY REMOVAL



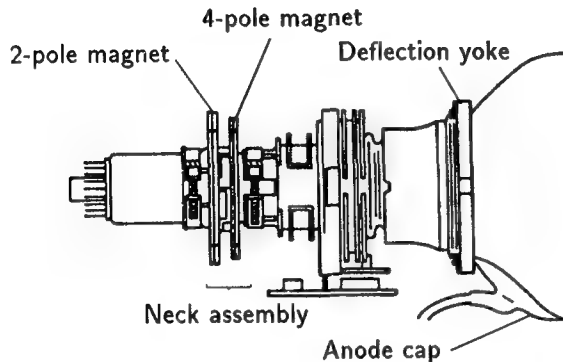
2-16. PICTURE TUBE REMOVAL



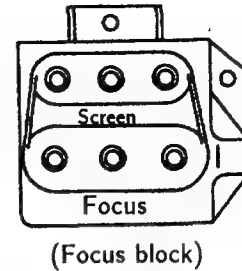
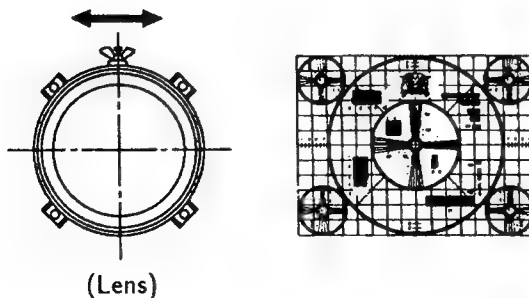
SECTION 3 SET-UP ADJUSTMENTS

3-1. FOCUS LENS ADJUSTMENTS

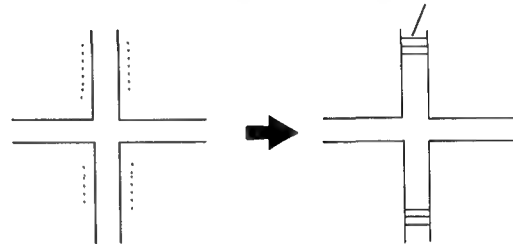
1. Set the D-board registration variable resistors (VR) to mechanical center.
2. Set the centering magnets (for red, green, and blue) to 0 as shown in the figure.



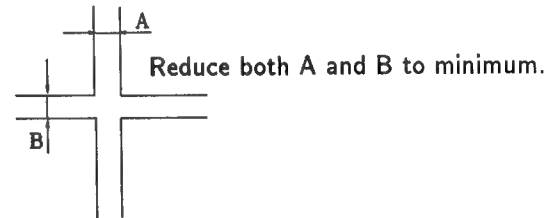
3. Input monoscope signal. Set 50% BRIGHTNESS and minimum PICTURE. Make rough adjustment so that 10IRE of the monoscope signal becomes faintly luminous using the screen VRs.
4. Set PICTURE and BRIGHTNESS maximum. Press the commander menu button. Select CONVERGENCE to display test signal.
5. Enter service mode. Select R OFF of SERVICE MODE to cut off red output. Similarly, select B OFF to cut off blue output.
6. Turn the green lens to eliminate flare of the test signal.



Verify that scanning lines are seen.



7. Turn the green focus VR in the focus block to adjust green focus to reduce both A and B of the test signal to minimum.



8. Repeat above 6 and 7. Couple of times to improve tracking and obtain an optimum focus. Then tighten the green lens screw.
9. Adjust the red and blue focuses similarly.

3-2. DEFLECTION YOKE POSITION ADJUSTMENTS

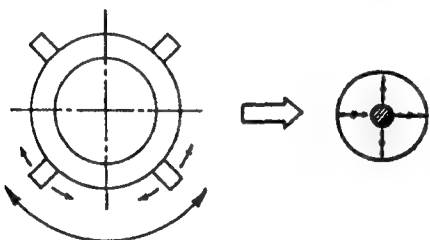
1. Input monoscope signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output. Similarly, select B OFF to cut off blue output.
3. Loosen the deflection yoke (DY) fitting screws. Tilt the DY to obtain the best horizontal and vertical monoscope patterns.
4. After adjustment, press the DY onto the cathode ray tube (CRT) funnel and tighten the screws.
5. Also adjust DY positions for red and blue outputs in the same way.

3-3. 2-POLE MAGNET ADJUSTMENT

1. Input dot signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
Similarly, select B OFF to cut off blue output.
3. Set PICTURE to maximum. Turn the green focus variable resistor (VR) in the focus block counterclockwise from the just focus to brighten the point in the dot.
4. Adjust the 2-pole magnet to position the bright point at the center of the dot.
5. Adjust the red and blue dots in the same way.

* Use the center dot:red and green

Use the vertical center and left end dot :blue

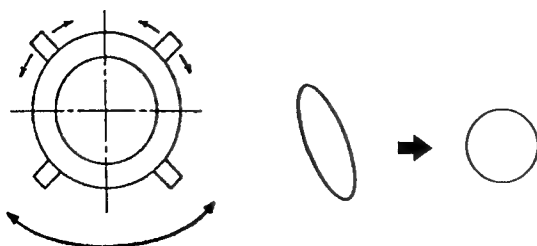


3-4. 4-POLE MAGNET ADJUSTMENT

1. Input dot signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
Similarly, select B OFF to cut off blue output.
3. Set PICTURE to maximum. Turn the green focus variable resistor (VR) in the focus block clockwise (count clockwise:blue) from the just focus until the dot diameter becomes as shown below.
4. Adjust the 2-pole magnet to make the dot perfectly round.
5. Turn the green focus variable resistor to the just focus.
6. Adjust the red and blue dot in the same way.

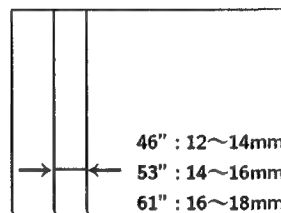
* Use the center dot : red and green

Use the vertical center and left end dot : blue



3-5. DE-FOCUS ADJUSTMENT (BLUE)

1. Input cross hatch signal.
2. Turn the blue focus variable resistor (VR) in the focus block counter clock wise so that the width of the left end vertical line becomes as shown below

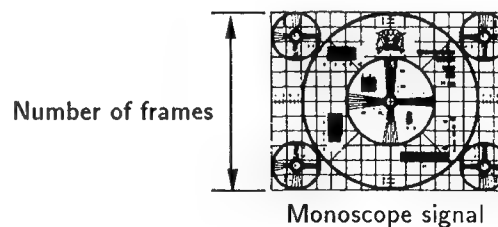


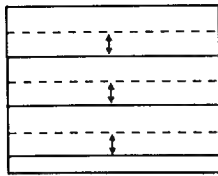
without flare

3-6. GREEN PICTURE ADJUSTMENTS

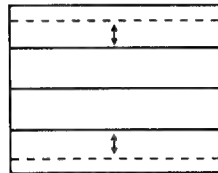
1. Input monoscope signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
Similarly, select B OFF to cut off blue output.
3. Turn RV913 and RV960, the vertical green linearity variable resistors (V.G LIN VRs) on the D-board, to obtain an optimum vertical linearity. Then turn RV911, the vertical green amplitude variable resistor (V.G SIZE VR) to set vertical amplitude to 11.7 frames.

Note: The vertical position indicator of the monoscope signal must be positioned at the center by adjusting RV905, the vertical green center position variable resistor (V.G CENT VR) in advance.

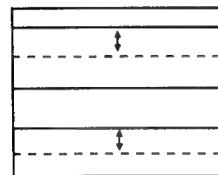





RV905 V.G CENT
(vertical position)

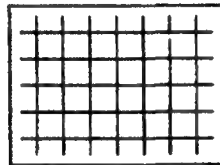



RV911 V.G SIZE
(vertical amplitude)




RV913 V.G LIN
(vertical linearity)

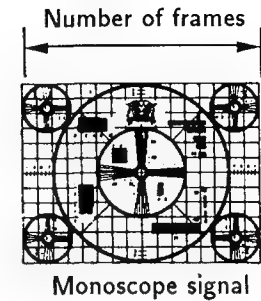
5. Verify that the horizontal lines on the top and bottom of cross-hatched area of the monoscope signal are horizontal and linear.



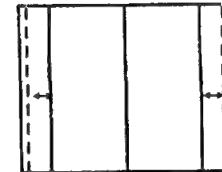
6. Turn RV916, RV964 and RV969, the horizontal green linearity variable resistors (H.G LIN VRs) on the D-board, to obtain an optimum horizontal linearity.

Then turn RV908, the horizontal green amplitude variable resistor (H.G SIZE VR) to set horizontal amplitude to 15.6 frames.

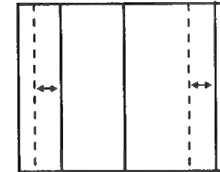
Note: The horizontal position indicator of the monoscope signal must be positioned at the center by adjusting RV902, the horizontal green center position variable resistor (V.G CENT VR) in advance.



Monoscope signal




RV908 H.G SIZE
(horizontal position)




RV916 H.G LIN
(horizontal linearity)

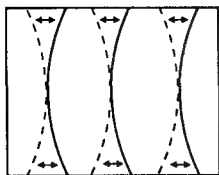
7. Input cross hatch signal.

Turn vertical green (V.G) and horizontal green (H.G) variable resistors (VRs) and make adjustments according to the following steps :

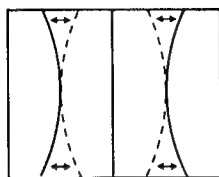
(Adjustment procedure)

1. [BOW] → [SKEW] → [CENT (center position)]
2. [PIN (pin warp)] → [SUB BOW] → [BOW]
3. [KEYS (trapezoid)] → [SUB SKEW] → [SKEW]
4. [M.WAVE (middle sine wave warp)] →
[WAVE-A (upper and lower sine wave warp)] →
[WAVE-U (upper sine wave warp)]
※ For vertical (V) only.
5. [V-M.PIN (vertical middle pin warp)] →
[V/WING (vertical wing warp)]
※ For vertical (V) only.
6. [H-M.PIN (horizontal middle pin warp)]
※ For horizontal (H) only.

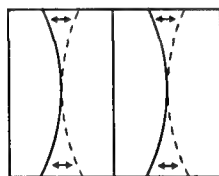
(Dot motion)



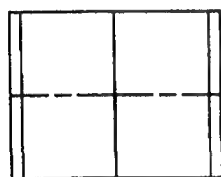
RV932 H.G BOW
 (horizontal green bow)



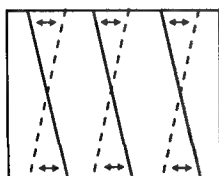
RV941 H.G PIN
 (horizontal green pin warp)



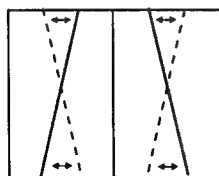
RV950 H.G SUB BOW
 (horizontal green sub bow)



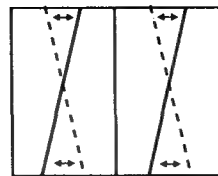
V.G BOW.....RV935
 V.G PIN.....RV938
 V.G SUB BOW.....RV953



RV920 H.G SKEW
 (horizontal green skew)



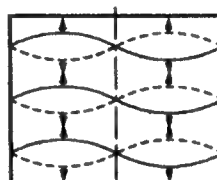
RV925 H.G KEYS
 (horizontal green trapezoid)



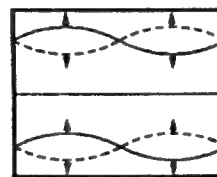
RV944 H.G SUB SKEW
 (horizontal green sub skew)



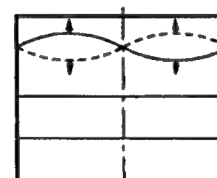
V.G SKEW.....RV923
 V.G KEYS.....RV929
 V.G SUB SKEW.....RV947



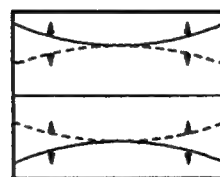
RV962 V-M-WAVE
 (vertical middle sine wave warp)



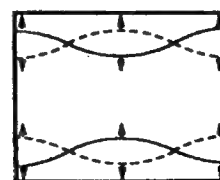
RV975 V-WAVE-A
 (vertical upper and lower
 sine wave warp)



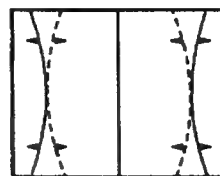
RV978 V-WAVE-U
 (vertical upper sine wave warp)



RV980 V-M. PIN
 (vertical middle pin warp)
 ※ Common in red, green,
 and blue



RV957 V/WING
 (wing warp)
 ※ Common in red, green,
 and blue



RV956 H/M. PIN
 (horizontal middle pin warp)

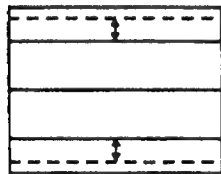
3-7. GREEN AND RED REGISTRATION ADJUSTMENTS

1. Input cross hatch signal.
2. Enter service mode. Select B OFF of SERVICE MODE to cut off blue output.
3. Turn the vertical red (V.R) and horizontal red (H.R) variable resistors (VRs) to adjust red picture convergence in relation to green picture according to the following steps :

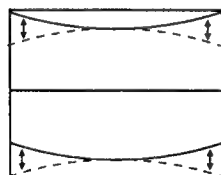
(Adjustment procedure)


1. [LIN (linearity)] → [SIZE (amplitude)] → [CENT (center position)]
2. [BOW] → [SKEW] → [CENT (center position)]
3. [PIN (pin warp)] → [SUB BOW] → [BOW] [H/M. PIN (horizontal middle pin warp)]
4. [KEYS (trapezoid)] → [SUB SKEW] → [SKEW]
5. [M.WAVE (middle sine wave warp)] → [WAVE-A (upper and lower sine wave warp)] → [WAVE-U (upper sine wave warp)]

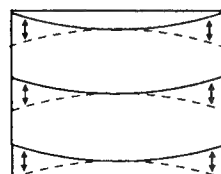
(Dot motion)



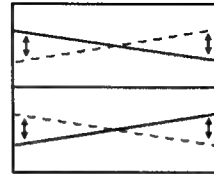

RV912 V.B SIZE
(vertical red amplitude)



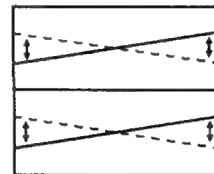

RV952 V.R SUB BOW
(vertical red sub bow)




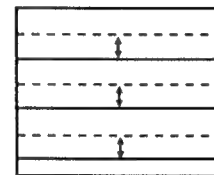

RV943 V.R BOW
(vertical red bow)



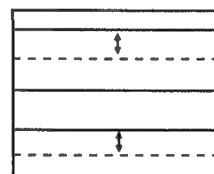

RV928 V.R KEYS
(vertical red trapezoid)



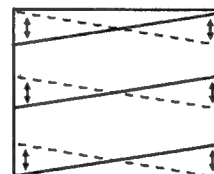

RV946 V.R SUB SKEW
(vertical red sub skew)




RV904 V.R CENT
(vertical red center position)




RV917 V.R LIN
(vertical red linearity)




RV922 V.R SKEW
(vertical red skew)

H.R LIN.....	RV915
H.R SIZE.....	RV907
H.R CENT.....	RV901
H.R BOW.....	RV931
H.R SKEW.....	RV919
H.R PIN.....	RV940
H.R KEYS.....	RV926
H.R SUB BOW.....	RV949
H.R SUB SKEW.....	RV943
V-M-WAVE.....	RV973
V-WAVE-A.....	RV976
V-WAVE-U.....	RV979
V-M.PIN.....	RV980
V/WING.....	RV957
H/M.PIN.....	RV956

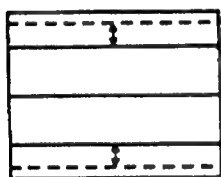
3-8. GREEN AND BLUE REGISTRATION ADJUSTMENTS

1. Input cross hatch signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
3. Turn the vertical blue (V.B) and horizontal blue (H.B) variable resistors (VRs) to adjust blue picture convergence in relation to green picture according to the following steps :

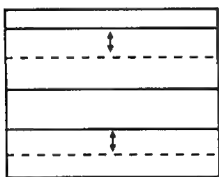
(Adjustment procedure)

1. [LIN (linearity)] → [SIZE (amplitude)] → [CENT (center position)] →
2. [BOW] → [SKEW] → [CENT (center position)]
3. [PIN (pin warp)] → [SUB BOW] → [BOW] [H/M. PIN (horizontal middle pin warp)]
4. [KEYS (trapezoid)] → [SUB SKEW] → [SKEW]
5. [M.WAVE (middle sine wave warp)] → [WAVE-A (upper and lower sine wave warp)] → [WAVE-U (upper sine wave warp)] →

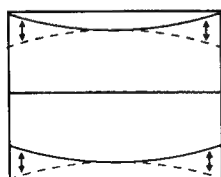
(Dot motion)



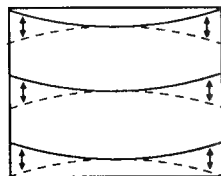
 RV912 V.B SIZE
(vertical blue amplitude)



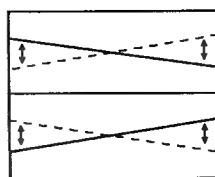
 RV918 V.B LIN
(vertical blue linearity)



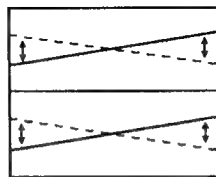
 RV954 V.B SUB BOW
(horizontal blue sub bow)




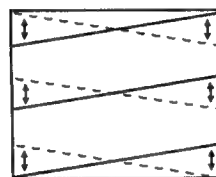
 RV936 V.B BOW
(vertical blue bow)



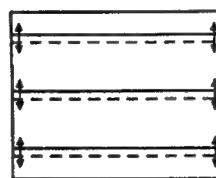
 RV930 V.B KEYS
(vertical blue trapezoid)



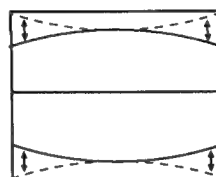
 RV948 V.B SUB SKEW
(vertical blue sub skew)



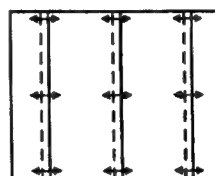
 RV924 V.B SKEW
(vertical blue skew)



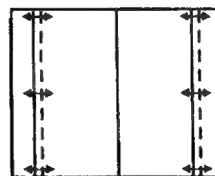
 RV906 V.B CENT
(vertical blue center position)



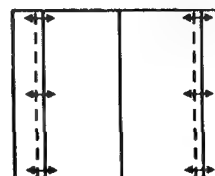
 RV939 V.B PIN
(vertical blue pin warp)



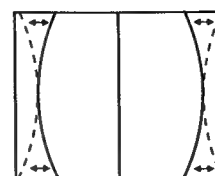
 RV903 H.B CENT
(vertical blue center position)



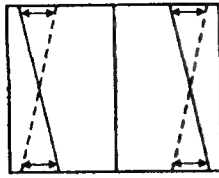
 RV909 H.B SIZE
(horizontal blue amplitude)



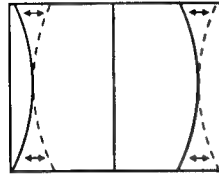
 RV914 H.B LIN
(horizontal blue linearity)



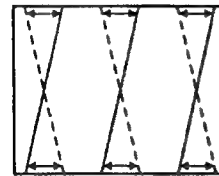
 RV942 H.B PIN
(horizontal blue pin warp)



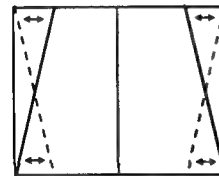
RV954 H.B SUB SKEW
(horizontal blue sub skew)



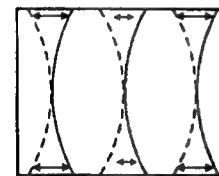
RV951 H.B SUB BOW
(horizontal blue sub bow)



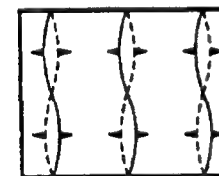
RV921 H.B SKEW
(horizontal blue skew)



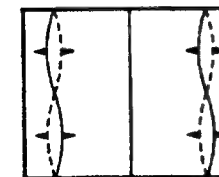
RV927 H.B KEYS
(horizontal blue trapezoid)



RV933 H.B BOW
(horizontal blue bow)



RV981
※ Common in red,
green, and blue



RV982
※ Common in red,
green, and blue

H/M PIN.....RV958
M.WAVE.....RV961
WAVE-A.....RV974
WAVE-U.....RV977

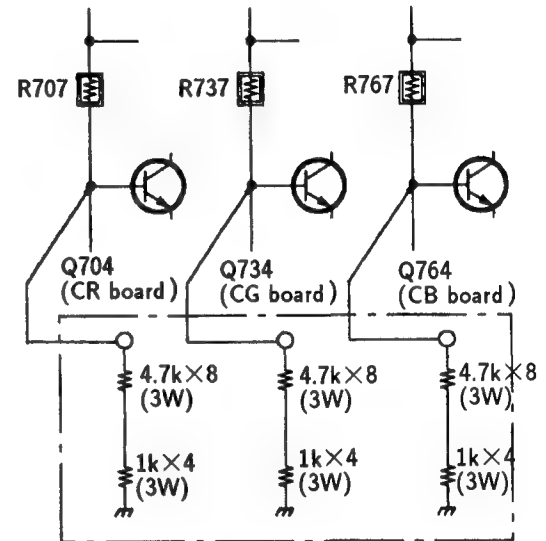
3-9. REGISTRATION CHECK

1. Out put red, blue, and green.
2. Out put cross hatch and monoscope signals to check registration. Also check focus.

3-10. WHITE BALANCE ADJUSTMENTS

1) Screen adjustment

1. Input white signal.
2. Remove connectors CR-15, CG-16, and CB-17.
3. Fit jigs between the ground and R707, R737, and R767.



※ Resistors in each jig are connected serial.

4. Turn the RGB (red, green, and blue) screen variable resistors in the focus block to make the flyback line faint. Stop before the line completely disappears.
5. Insert connectors CR-15, CG-16, and CB-17.

2) White balance adjustments (SBRT, GAMP, BAMP, GCUT, BCUT)

1. Input monoscope signal and enter service mode.
2. Select the picture quality adjustment from the menu and set PICTURE minimum.
3. Use the commander to adjust SBRT so that 10 IRE of the monoscope pattern becomes faintly luminous.
4. Input white signal.
5. Set PICTURE minimum. Adjust item GCUT and BCUT to obtain an optimum white balance.
6. Set PICTURE maximum. Adjust GAMP and BAMP to obtain an optimum white balance.
7. Repeat white balance adjustment alternating PICTURE setting at the minimum and maximum.

SECTION 4

SAFETY RELATED ADJUSTMENTS

4-1. SAFETY RELATED ADJUSTMENTS

When replacing the following components, make the HV REGULATOR adjustments (on the N board)

-HV block, IC803, IC805, D805, D807, C817, C818, C821, C836, C837, R824, R825, R827, R828, R834, R835, R836, R864, R865, R866, R902

When replacing the following components, make the HV HOLD DOWN adjustments (on the N board)

-HV block, IC803, IC804, Q804, D806, D808, C809, C819, C820, C822, C823, C850, R807, R826, R829, R832, R833, R837, R838, R839, R840, R841, R892, R893, R900, R901

When replacing the following components, make the BEAM CURRENT PROTECTOR adjustments (on the N board)

-① IC802, Q805, Q807, D811, D812, C810, C824, C825, C826, C827, C831, R810, R843, R844, R847, R848, R849, R850, R851, R852, R853, R854, R881
- ② IC804, Q804, Q808, D808, D809, C809, C828, C829, C830, C831, R807, R839, R840, R841, R847, R848, R849, R850, R851, R852, R855, R856, R857, R881

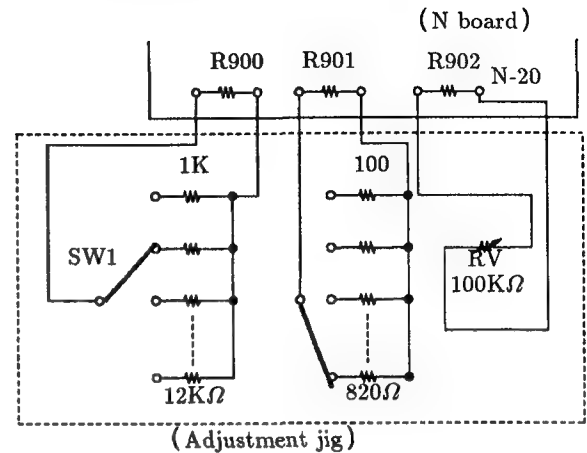
When replacing the following components, make the OVP CIRCUIT adjustments (on the G board)

-Q618, Q621, D628, C634, R639, R649, R652, R655, R656

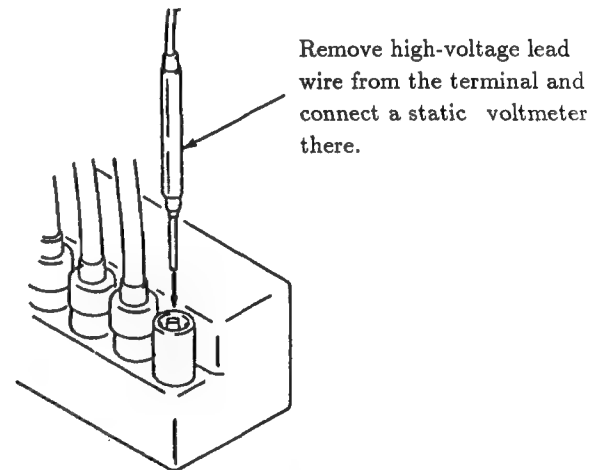
— Checking with static voltmeter —

HV HOLD DOWN ADJUSTMENTS (R900, R901)

1. Verify that the power switch is off.
2. Connect the HV hold down adjustment resistance jig to the N20 connector on the N board.



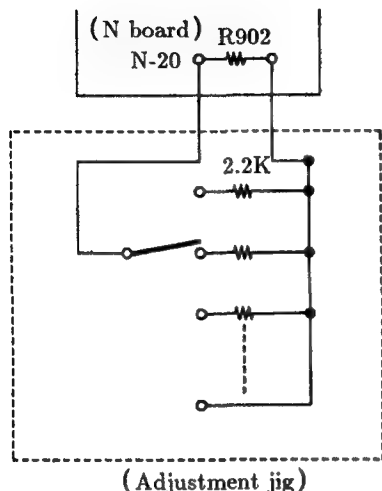
3. Connect an external variable resistor (RV) to R902 of the N board.
4. Remove the cap off from the unused terminal of the high voltage block. Connect a static voltmeter to the terminal.



5. Receive 120 VAC power voltage and monoscope pattern signal. Maximize PICTURE and BRIGHTNESS.
6. Use the external variable resistor of the hold down adjustment jig to make the static voltmeter to read $33.50 \pm 0.50\text{kVDC}$.
7. Raise resistances with the jig until the HV hold down circuit is activated. Read the figures then, and mount resistance of the measured figures to R900 and R901.
R900 : Must be $1\text{k}\Omega$ to $12\text{k}\Omega$
R901 : Must be 100Ω to 820Ω
8. Turn on power again. Vary external variable resistance and confirm that the HV hold down circuit is activated at the reated value, $33.50 \pm 0.50\text{kV}$.

HV REGULATOR ADJUSTMENTS (R902)

1. Connect the HV adjustment resistance jig to R902 of the N board.



2. Remove the red anode lead wire for the CRT tube from the high-voltage block and connect the static voltmeter instead.
3. Receive 120 VAC power voltage and monoscope pattern signal. Set PICTURE and BRIGHTNESS to the standard.
4. Turn on power. To adjust the resistance of R902 with the adjustment jig to read the rated value, $31.50 \pm 0.50 \text{ kV}$.
5. Receive all-white signal. Set BRIGHTNESS to the standard. Maximize PICTURE. Confirm that the rated value, $31.50 \pm 0.50 \text{ kV}$ is read.
6. Cut off RGB by R OFF, G OFF, B OFF of the service commander. Verify that the rated value, $31.50 \pm 0.50 \text{ kV}$, is read.

+B VOLTAGE CONFIRMATION

1. Receive 120 ± 1 VAC power voltage and monoscope pattern signal. Set BRIGHTNESS to standard and maximize PICTURE.
2. Connect a digital multimeter between the 115V line and the ground on the G board, and confirm that the rated value, $115.0 \pm 3.0 \text{ V}$ is read.

CHECKING AFTER REPLACING IC601

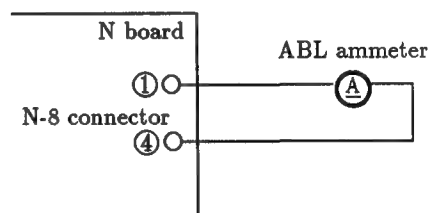
1. When replacing IC601, check the +B voltage.

CHECKING THE OVP (overvoltage protection) CIRCUIT (R652)

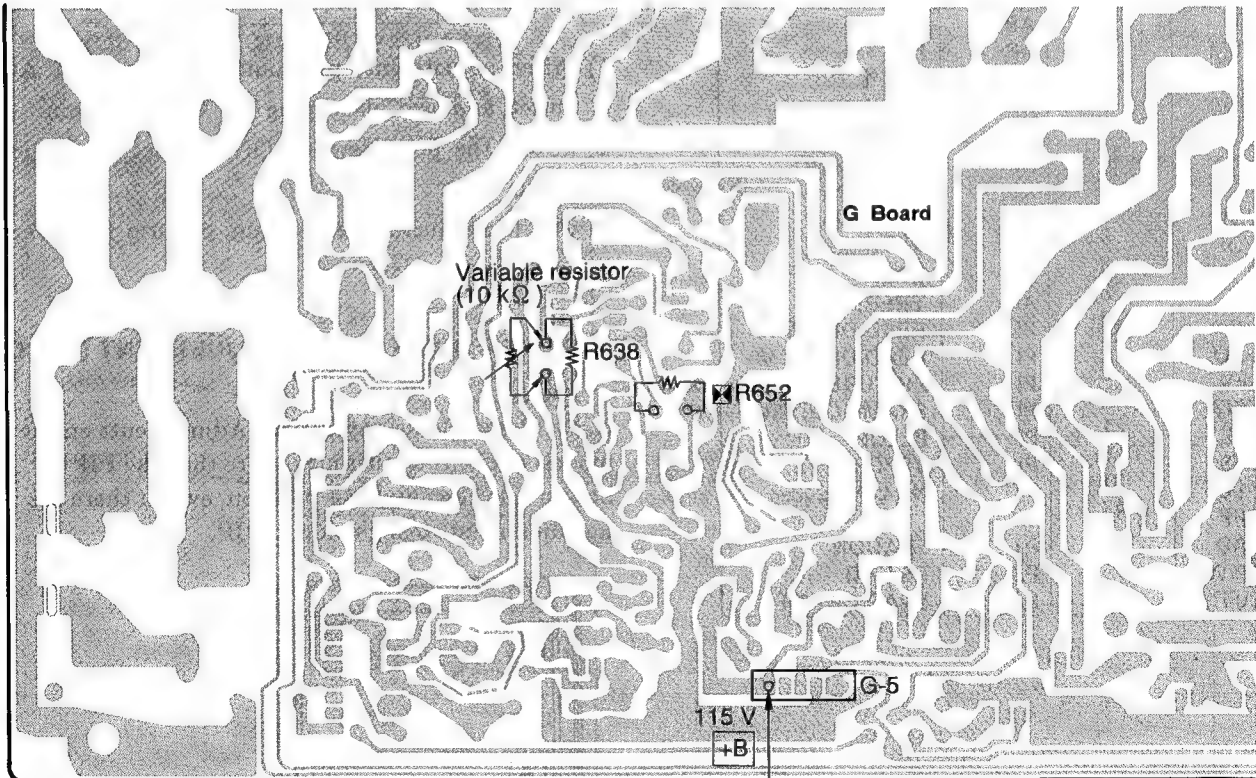
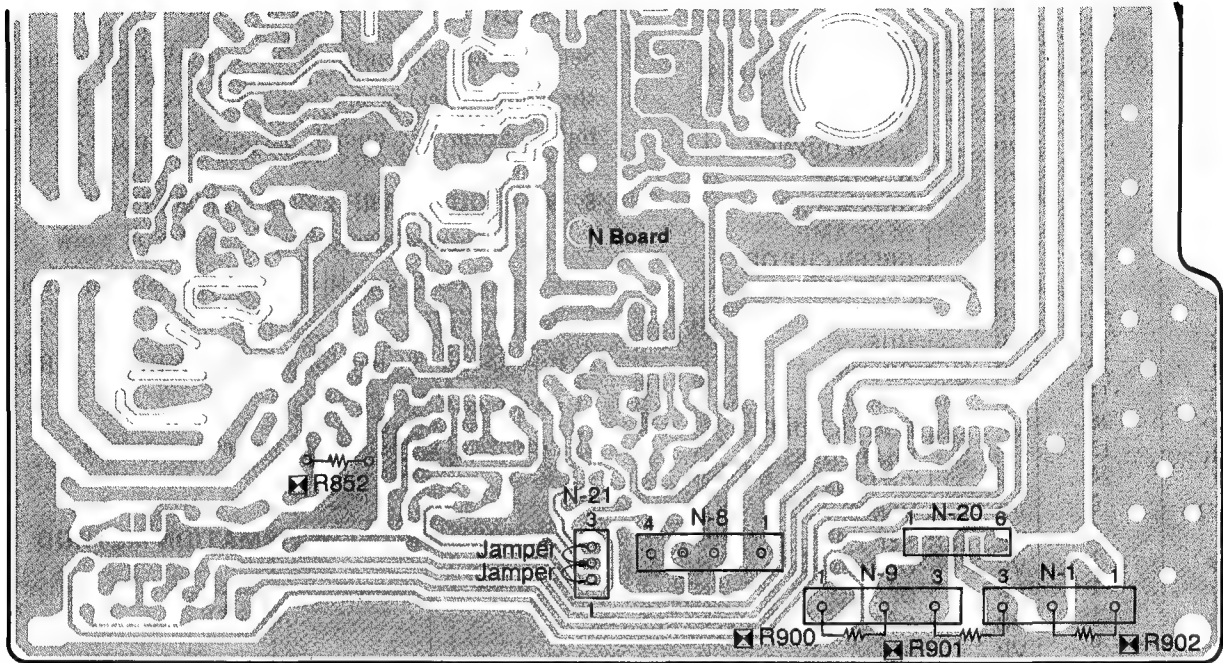
1. Receive 120 VAC power voltage and monoscope pattern signal. Maximize PICTURE and BRIGHTNESS.
2. Remove R638 from the G board and connect a variable resistor (4.7 to $10 \text{ k}\Omega$) instead.
3. Turn the variable resistor of $10 \text{ k}\Omega$ and confirm that the OVP circuit is activated and luster disappears when +B voltage reads the rated value, $125.0 \pm 5.0 \text{ VDC}$.

BEAM CURRENT PROTECTOR CHECK (R852)

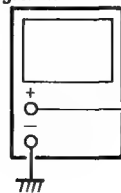
1. Receive 120 VAC power voltage and monoscope pattern signal. Maximize BRIGHTNESS.
2. Connect pin① and pin② of the N-21 connector. (on the N board)
3. Remove the jumper connector from the N-8 connector on the N board. Then connect an ABL ammeter between pin ① and pin ④ of the N-8 connector.



4. Raise PICTURE current gradually. Confirm that the beam current protector circuit is activated and luster disappears under the rated value, $3400 \mu\text{A}$.
5. Connect pin③ and pin② of the N-21 connector. Verify that the protector circuit is activated and luster disappears similarly.



digital multimeter



— Checking without static voltmeter —

HV HOLD DOWN ADJUSTMENT (R900, R901)

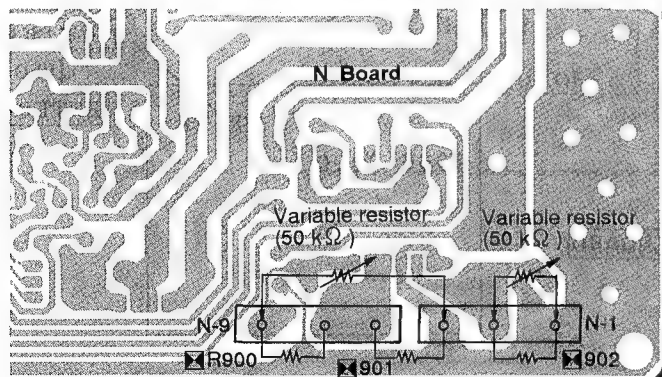
1. Receive all-white signal. Maximize PICTURE and BRIGHTNESS.
2. Remove R902 from the N board. Connect a variable resistor of $50k\Omega$ on each end, and minimize the resistance.
3. Remove R900 and R901 from the N board. Connect a variable resistor of $50k\Omega$ on each end, and minimize the resistance.
4. Connect a digital voltmeter between the D801 cathode and chassis ground of the N board.
5. Turn on the power switch. Adjust the variable resistors connected to the R902 of the N board to make the digital multimeter to read $145.0VDC$.
6. Adjust the variable resistors connected to R900 and R901 on the N board so as to activate the HV hold down circuit and turn off the display.
7. Read the variable resistors connected to R900 and R901 and mount fixed resistors of measured resistance to the terminals.

Note : Select fixed resistance from the following ranges.

R900 : $1k\Omega$ to $12k\Omega$

R901 : 100Ω to 820Ω

8. Maximize resistance of the variable resistor connected to R902 of the N board and turn on power.
9. Vary variable resistance at R902. Confirm that the HV hold down circuit is activated and the display is turned off when voltage reads $134 \pm 1.0V$.

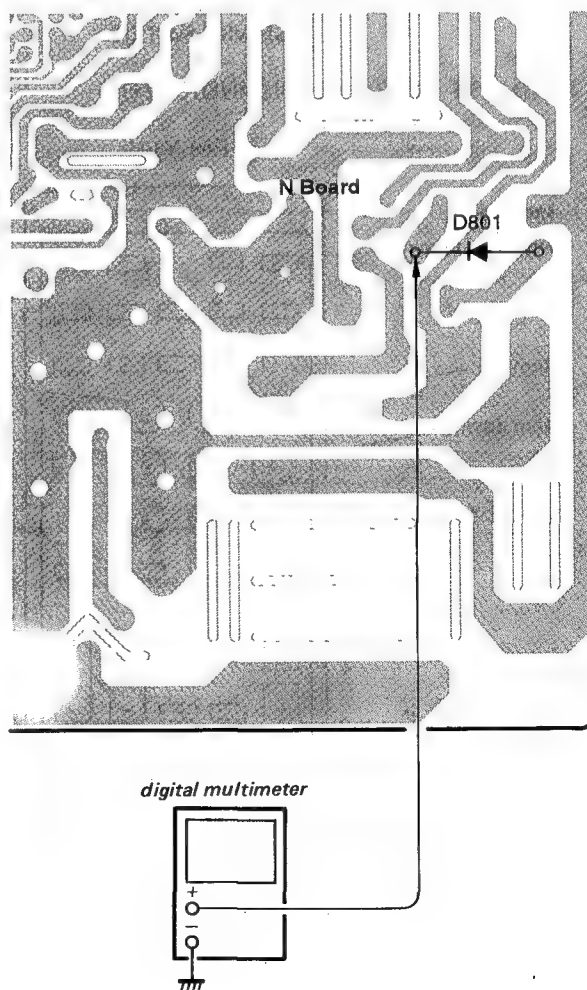


HV REGULATOR ADJUSTMENT (R902)

1. Receive all-white signal. Maximize PICTURE and BRIGHTNESS.
2. Connect a variable resistor of $50k\Omega$ on each end of R902 of the N board. Maximize resistance.
3. Connect a digital voltmeter between the D801 cathode and the chassis of the N board.
4. Turn on power. Adjust the variable resistor so that the digital multimeter reads $135.0V \pm 1.0V$.
5. Read the variable resistance then.
6. Mount a fixed resistor of the measured resistance to R902.

Note : R902 : Must be $2.2k\Omega$ to $27k\Omega$

7. Turn on power again. Confirm that the digital multimeter reads $135.0V \pm 1.0V$.



SECTION 5 CIRCUIT ADJUSTMENTS

5-1. ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

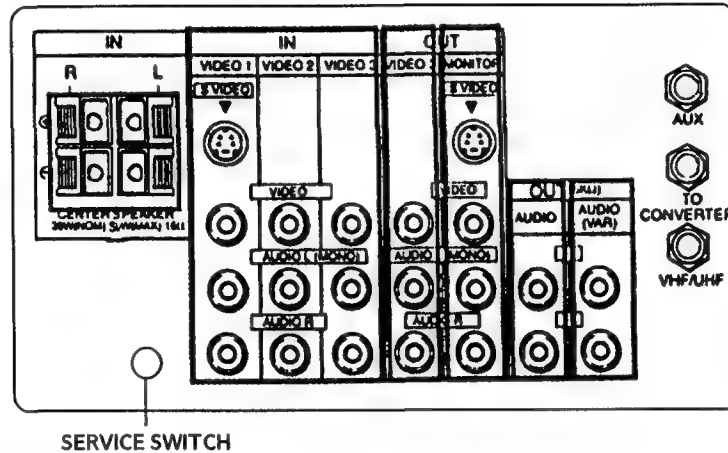
Use of Remote Commander (RM-Y115) can be performed circuit adjustments about this model.

1. METHOD OF SETTING THE SERVICE MODE

- 1) Press **POWER** button on the Remote Commander while pressing switch on the rear of the set.

NOTE : Test Equipment Required.

1. Pattern Generator
2. Frequency counter
3. Digital multimeter
4. Audio OSC



2. ADJUST BUTTONS AND INDICATOR

RM-Y115

MUTING

write the memory

item up

item down

RESET

POWER

data up

data down

ENTER

write into memory

STANDARD

	item	data
SERVICE	HFRE	0 0

	MUTING
↓ RED	
ENTER	
WRITE	
1000 0000	

3. AN ITEM OF ADJUSTMENT

ITEM	REFERENCE DATA	NAME REGIST	
AFC	0	VP	AFC 1.0
HFRE	74	VP	H. FREQUENCE
VFRE	16	VP	V. FREQUENCE
HPOS	5	VP	H. PHASE
GAMP	25	VP	GREEN AMP.
BAMP	26	VP	BLUE AMP.
GCUT	9	VP	GREEN CUT OFF.
BCUT	6	VP	BLUE CUT OFF
SPIX	40	VP	PICTURE
SHUE	29	VP	HUE
SCOL	28	VP	COLOR
SBRT	11	VP	BRIGHT
RGBP	28	VP	RGB PICTURE
SHAR	13		SHARPNESS
DISP	24		OUTPUT
VSMO	0	VP	VSMO
REF	1	VP	REF 1.0
ROFF	1	VP	OFF NR
GOFF	1	VP	OFF NG
BOFF	1	VP	OFF NB
ABLM	0	VP	ABLM
DRGB	0	VP	D RGB
TEST	0	AP	T
MPX	7	AP	ATT
FILO	31	AP	I1
DEEM	7	AP	I2
STEV	31	AP	OSC 1
SAPV	31	AP	OSC 2
PILO	7	AP	PILOT
SEP	31	AP	WIDE BAND
VD	7	AP	SPECTRAL
LVOL	0	AP	VOLUME-L
RVOL	0	AP	VOLUME-R
BASS	8	AP	BASS
TRE	8	AP	TREBLE
PHPO	32	PI	READ DELAY H
PVPO	8	PI	READ DELAY V
PLEV	6	PI	PICTURE LEVEL
PFCO	7	PI	FRAME COLOR
PPLL	1	PI	PLLOF
PPVS	6	PI	VSPDEL
NRLE	31		NR LEVEL
DSPP	43		
SHAD	1	PJ	SHADON
VMSW	1	PJ	RS HAD
SCUT	16	PJ	SHAD CUT OFF

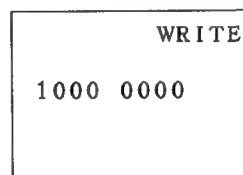
4. METHOD OF CANCELLATION FROM SERVICE MODE

Set the standby condition (Press **POWER** button on the commander) in the next place, press **POWER** button again, hereupon it becomes TV mode.

5. METHOD OF WRITE FOR MEMORY

- 1) Set to Service Mode.
- 2) Press **1** (UP) and **4** (DOWN), select an item of adjustments.
- 3) Press **MUTING** button indicate WRITE (RED) on screen.
- 4) Press **ENTER** button to write for memory.

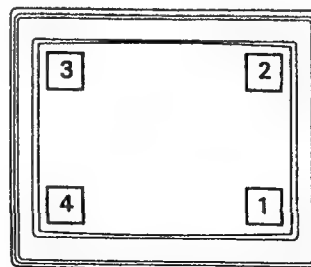
6. MEMORY WRITE CONFIRMATION METHOD



- 1) After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
- 2) Turn the power switch ON and set to Service Mode.
- 3) Call the adjusted items again, confirm they were adjusted.

7. PUB PICTURE POSITION ADJUSTMENT (PHPO, PUPO)

Note : Before doing any Service Adjustments on the models above you must make sure that the PIP Screen is in the number 1 position, even if there are no adjustments being made to PIP.



PIP Positions

After making adjustments into the PIP 1 position, write the information into the ROM.

Next, unplug the unit and recheck the other three positions. Adjustments made to the number 1 position will affect the other three positions.

5-2. A BOARD ADJUSTMENTS

RF AGC ADJUSTMENT (IF BLOCK VR)

- 1) Input a color-bar signal.
- 2) Adjust AGC VR of TU 101 so that snow noise and cross-modulation disappear from the picture.
- 3) Confirm them at every channel.

H.FREQUENCY ADJUSTMENT (HFRE)

- 1) Set to Service Mode.
- 2) Input a color-bar signal.
- 3) Connect a frequency counter to pin③ of A-10 connector.
- 4) Call the item of AFC, set to 3 level (free run).
- 5) Select HFRE with **[1]** and **[4]**.
- 6) Adjust **[3]** and **[6]** to the 15735 ± 60 Hz level.
- 7) Call the item of AFC again, adjust the level "01".
- 8) Write into the memory by pressing **[MUTING]** → then **[ENTER]**.

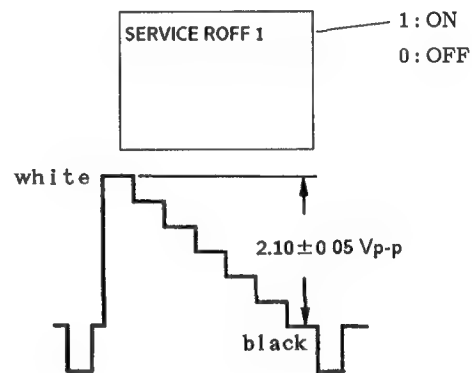
V.FREQUENCY ADJUSTMENT (VFRE)

- 1) Set the Service Mode.
- 2) Input an off-air signal (VIDEO IN → no signal).
- 3) Connect the frequency counter across connector ⑬pin of E 1-1 connector and ground.
- 4) Select VFRE with **[1]** and **[4]**.
- 5) Adjust **[3]** and **[6]** to the 56 ± 0.5 Hz.
- 6) Write the memory by pressing **[MUTING]** → then **[ENTER]**.

SUB CONTRAST ADJUSTMENT (SPIX)

- 1) Set to Service Mode.
- 2) Input a color-bar signal. (75 IRE)
- 3) Set the conditions as follows.

PICTURE	.....	MAX
COLOR	.....	MIN
BRIGHTNESS	.....	MIN
TRINITONE	.....	LOW
R OFF	.....	ON
G OFF	.....	OFF
B OFF	.....	OFF

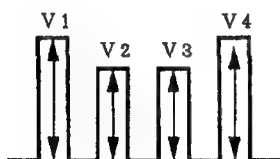


- 4) Connect an oscilloscope to ⑳pin of E1-1 connector on A board and ground.
- 5) Adjust **[3]** and **[6]** to the 2.10 ± 0.05 Vp-p level by select-ing SPIX with **[1]** and **[4]**.
- 6) Write the memory by pressing **[MUTING]** → then **[ENTER]**.
- 7) Return the following back to normal after adjustment.

G OFF	.....	ON
B OFF	.....	ON
COLOR	.....	CENTER
BRIGHTNESS	.....	CENTER
TRINITONE	.....	HIGH
PICTURE	.....	80%

SUB HUE, SUB COLOR ADJUSTMENT (SHUE, SCOL)

- 1) Input a color-bar signal.
- 2) Press **STANDARD** to normal.
- 3) Set to Service Mode.
- 4) Connect an oscilloscope to pin ② of E1-1 connector on A board and ground.
- 5) Adjust ③ and ④ to the $V1=V4$ and $V2=V3$ by select to SHUE and SCOL with ① and ④. Lower the data 4 steps from this point.

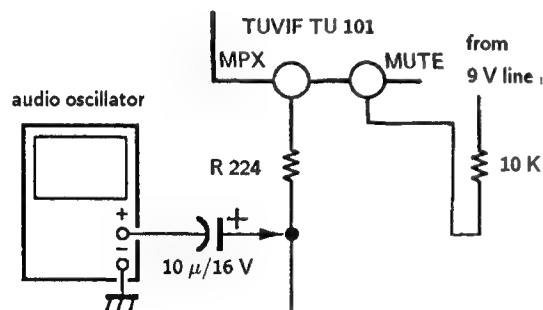


- 6) Write into the memory by pressing **MUTING** → then **ENTER**.

FILTER ADJUSTMENT (MPX, FILO)

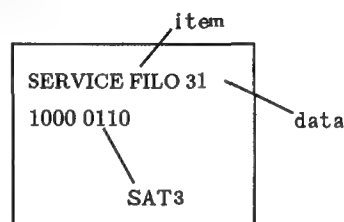
- 1) Set to Service Mode.
- 2) Select to **TEST** with ① and ④, set the data to "1". Then select MPX and change data to "08".
- 3) Connect an audio oscillator to R224 using a capacitor ($10\mu\text{F}/16\text{V}$), set frequency to $62.936\text{ kHz} \pm 0.1\text{ kHz}$.

And then, through the $10\text{k}\Omega$ resistor, feed 9.0V into the mute of TUVIF TU 101.



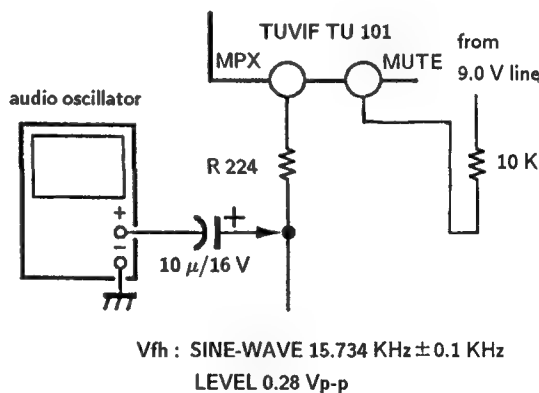
V4 fh : SINE-WAVE $62.936\text{ kHz} \pm 0.1\text{ kHz}$
LEVEL 3.0 Vp-p

- 4) Make the data "00" by selecting FILO with ① and ④. And then, send up the data gradually by pressing ⑥. Set the data to D1 before SAT3 changing to 1 from 0.
- 5) Send up the data gradually. Set data D2 when SAT3 changes 0 from 1.
- 6) Adjust the data of FILO to $\frac{D1 + D2}{2}$.
- 7) Write into the memory by pressing **MUTING** → then **ENTER**.

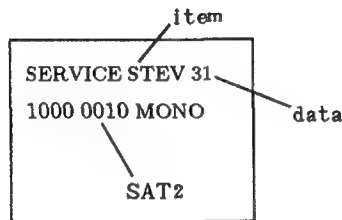


ST VCO ADJUSTMENT (MPX, STEV)

- 1) Set to Service Mode.
- 2) Select **TEST** with ① and ④, set the data to "1". And then press **MTS** to MONO.
- 3) Select MPX, set the data "8".
- 4) Connect an audio oscillator to R224 using electrolytic capacitor ($10\mu\text{F}/16\text{V}$) and apply the frequency V_{st} . Then, apply DC voltage to mute of TUVIF TU 101 using $10\text{k}\Omega$ connect to 9.0 V line.



- 5) Select STEV with [1] and [4], set the data to "00" with [6]. And then, send up the data gradually. Set the data to D1 before SAT2 changes from 0 to 1.
- 6) Send up data gradually, set the data to D2 when SAT2 changes 1 from 0.
- 7) Adjust the data of STEV to $(D1 + D2)/2$.
- 8) Write into the memory by pressing [MUTING] → then [ENTER].



MPX IN LEVEL ADJUSTMENT (MPX)

- 1) Set to Service Mode.
- 2) Select TEST with [1] and [4], set the data to "0" with [6]. And then press [MTS] to MONO.
- 3) Select MPX with [1] and [4], set the data to "8" with [3] and [6].
- 4) Write into the memory by pressing [MUTING] → then [ENTER].

PILOT CANCEL ADJUSTMENT (PILO)

- 1) Set to the Service Mode.
- 2) Select PILO with [1] and [4], set the data to "8" with [3] and [6].
- 3) Write into the memory by pressing [MUTING] → then [ENTER].

SAP VCO f₀ ADJUSTMENT (SAPV)

- 1) Set to Service Mode.
- 2) Input a stereo broadcast signal with SAP.
- 3) Select TEST with [1] and [4], set the data to "0". And then, press [MTS] to MAIN.
- 4) Connect a digital multimeter to TP-1(DBX). This voltage reading will equal V 1.
- 5) Press MTS to SAP and this voltage will equal V 2.
- 6) Select SAPV with [1] and [4], adjust [3] and [6] so that $V2 = V1 \pm 0.03 \text{ VDC}$.
- 7) Write the memory by [MUTING] → [ENTER].

SEPARATION ADJUSTMENT (SEP)

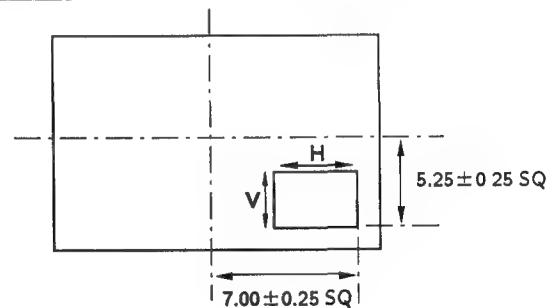
- 1) Set to Service Mode.
- 2) Press [MTS] to MAIN and receive a monoral broadcast signal.

In the next step, receive a stereo broadcast signal.

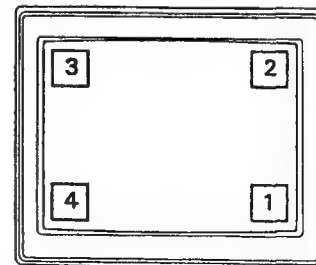
- 3) Select SEP and VD with [1] and [4], adjust [3] and [6] so that a clear stereo sound is effected.

SUB PICTURE POSITION ADJUSTMENT (PHPO, PVPO)

- 1) Input a cross hatch signal.
- 2) Set to service mode.
- 3) Press PIP to display a sub picture.
(RIGHT LOWER Position)
- 4) Select PHPO, PVPO with [1] and [4].
- 5) Adjust [3] and [6] to the standard as shown below.
- 6) Write the memory by pressing [MUTING] → then [ENTER].



Note : Before doing any Service Adjustments on the models above you must make sure that the PIP Screen is in the number 1 position, even if there are no adjustments being made to PIP.

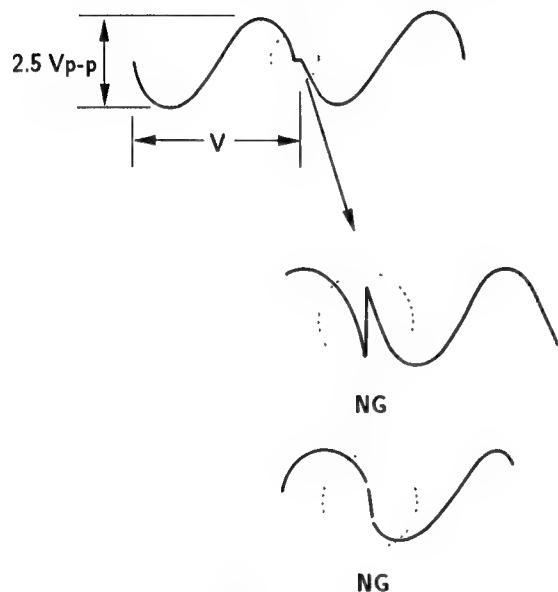


After making adjustments into the PIP 1 position, write the information into the ROM. PIP Positions Next, unplug the unit and recheck the other three positions. Adjustments made to the number 1 position will affect the other three positions.

5-3. DS BOARD ADJUSTMENTS

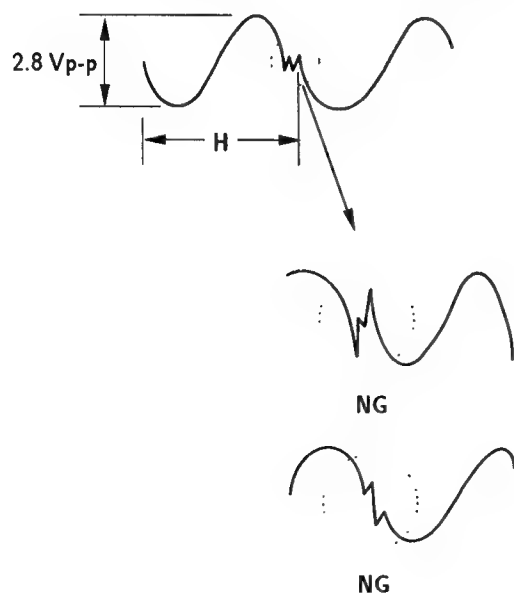
V. 3 WAVE ADJUSTMENT (RV983)

- 1) Input a color-bar signal.
- 2) Connect an oscilloscope IC1712 Pin⑦ of DS board ground.
- 3) Adjust RV983 as shown the following figure.

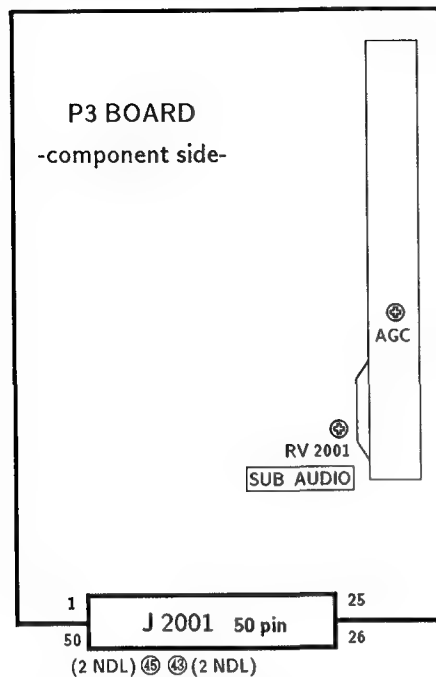


H. 3 WAVE ADJUSTMENT (RV984)

- 1) Input a color-bar signal.
- 2) Connect an oscilloscope IC1712 Pin① of DS board ground.
- 3) Adjust RV984 as shown the following figure.



5-4. P3 BOARD ADJUSTMENTS



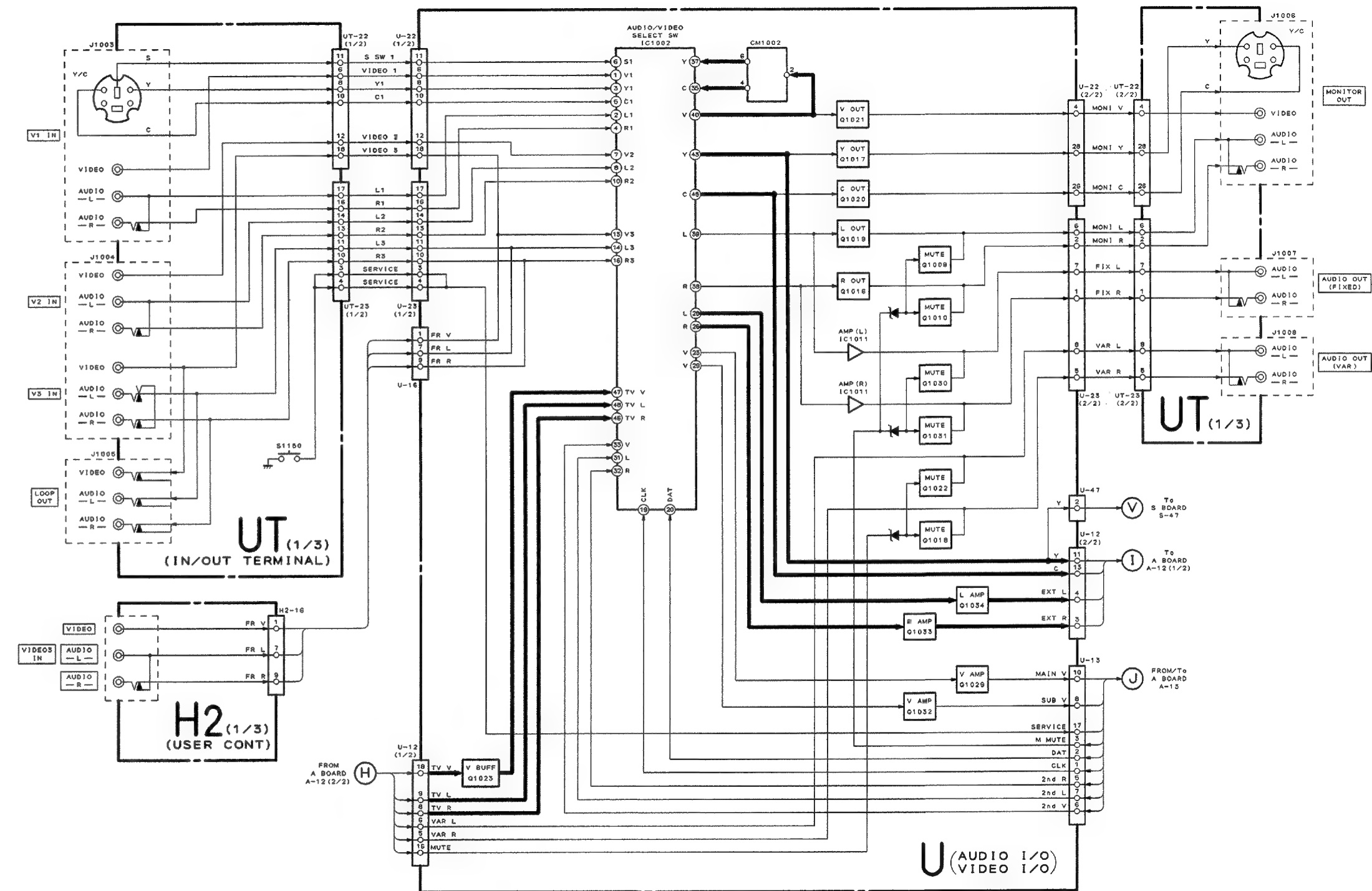
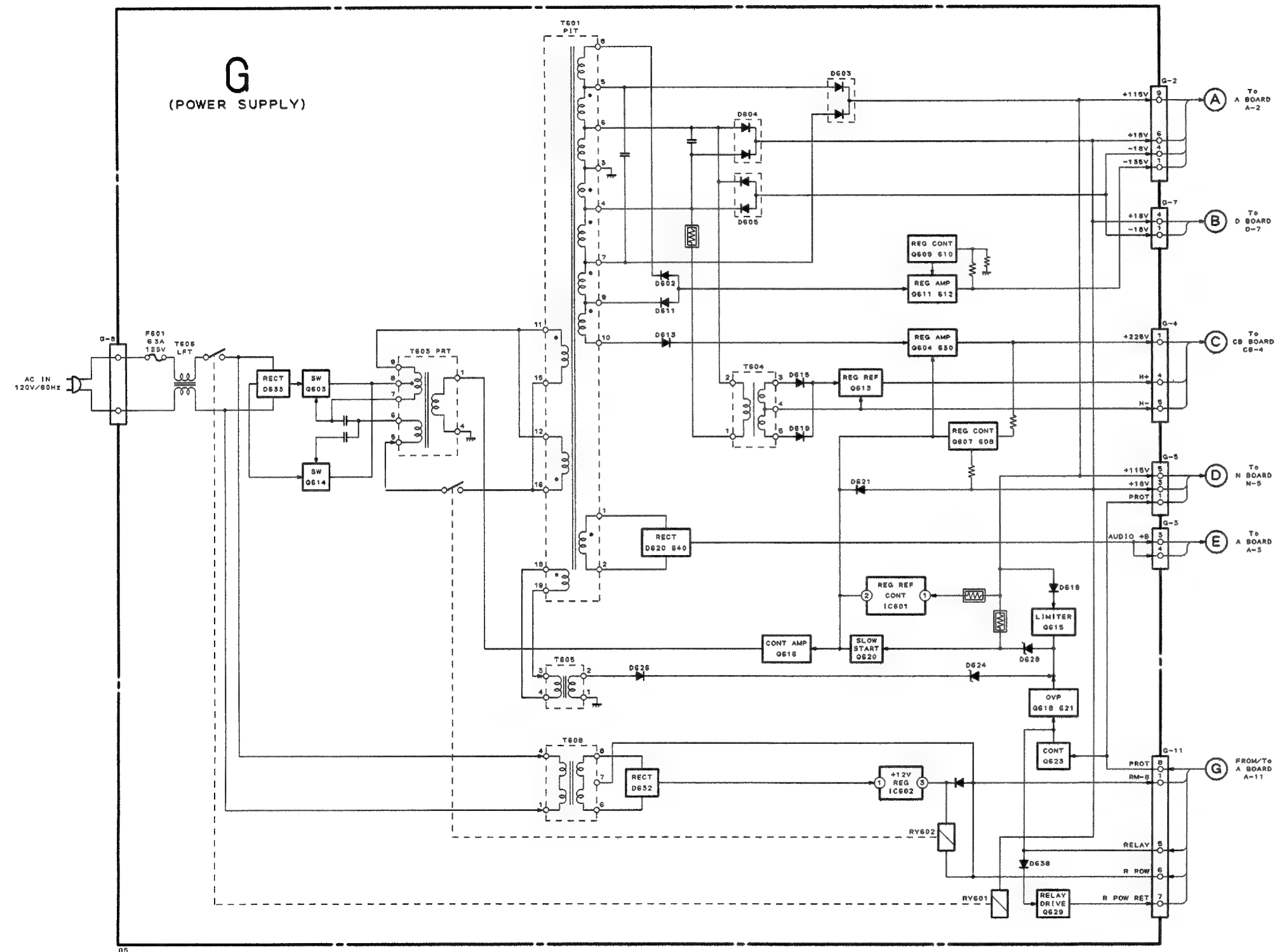
RF AGC ADJUSTMENT(IF BLOCK VR)

- 1) Input a color-bar signal.
- 2) Set to PICTURE IN PICTURE mode.
- 3) Adjust AGC VR of TU 2001 so that snow noise and cross-modulation disappear from the picture.
- 4) Confirm them at every channel.

SUB PICTURE SOUND VOLUME LEVEL (SUB AUDIO) ADJUSTMENT(RV2001)

- 1) Receive an audio signal of 400 Hz. (100% mod.)
- 2) Adjust RV 2001 for the following level at Pin 43 (2 NDR) or Pin 45 (2 NDL) of J 2001.

500 mVrms \pm 2 dB



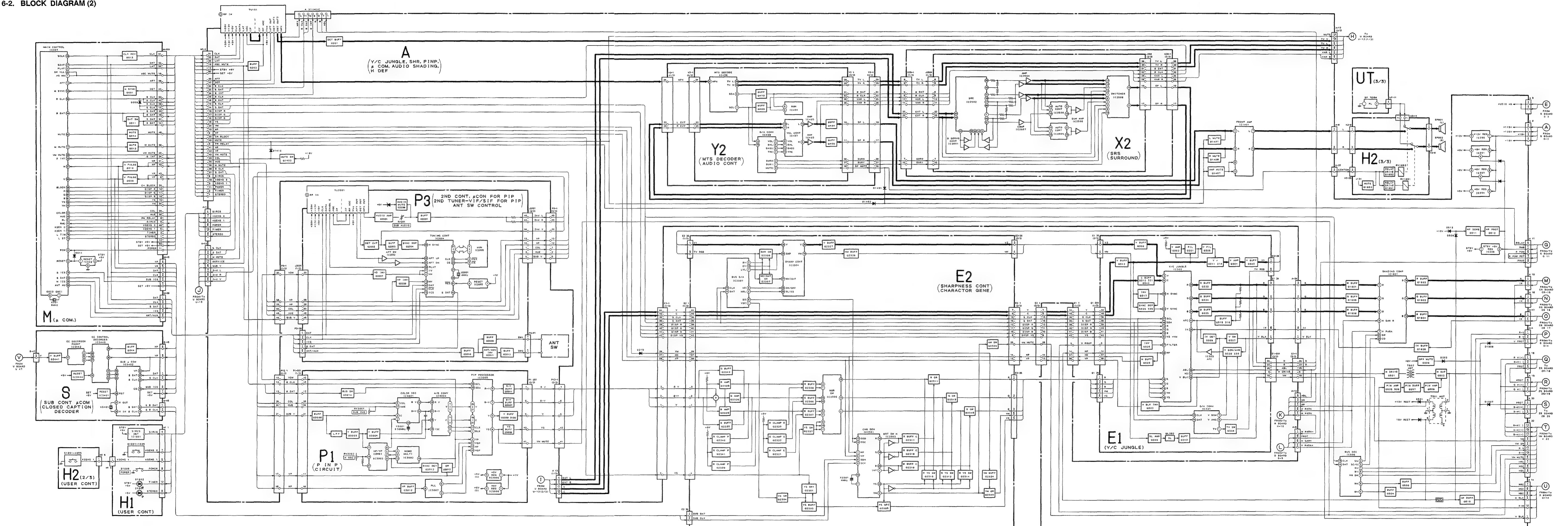
6-2. BLOCK DIAGRAM (2)

KP-46V15/46V16/61V15
KP-53V15/53V16/61V15
RM-Y115

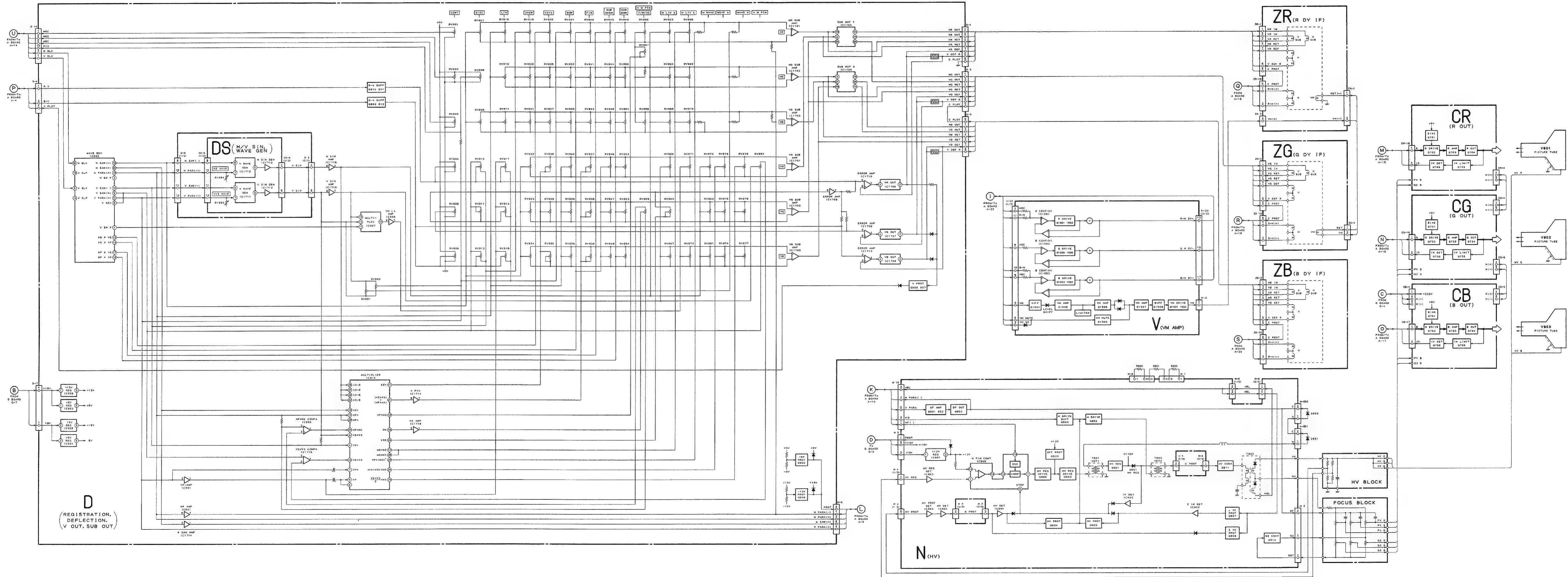
KP-46V15/46V16/61V15
KP-53V15/53V16/61V15
RM-Y115

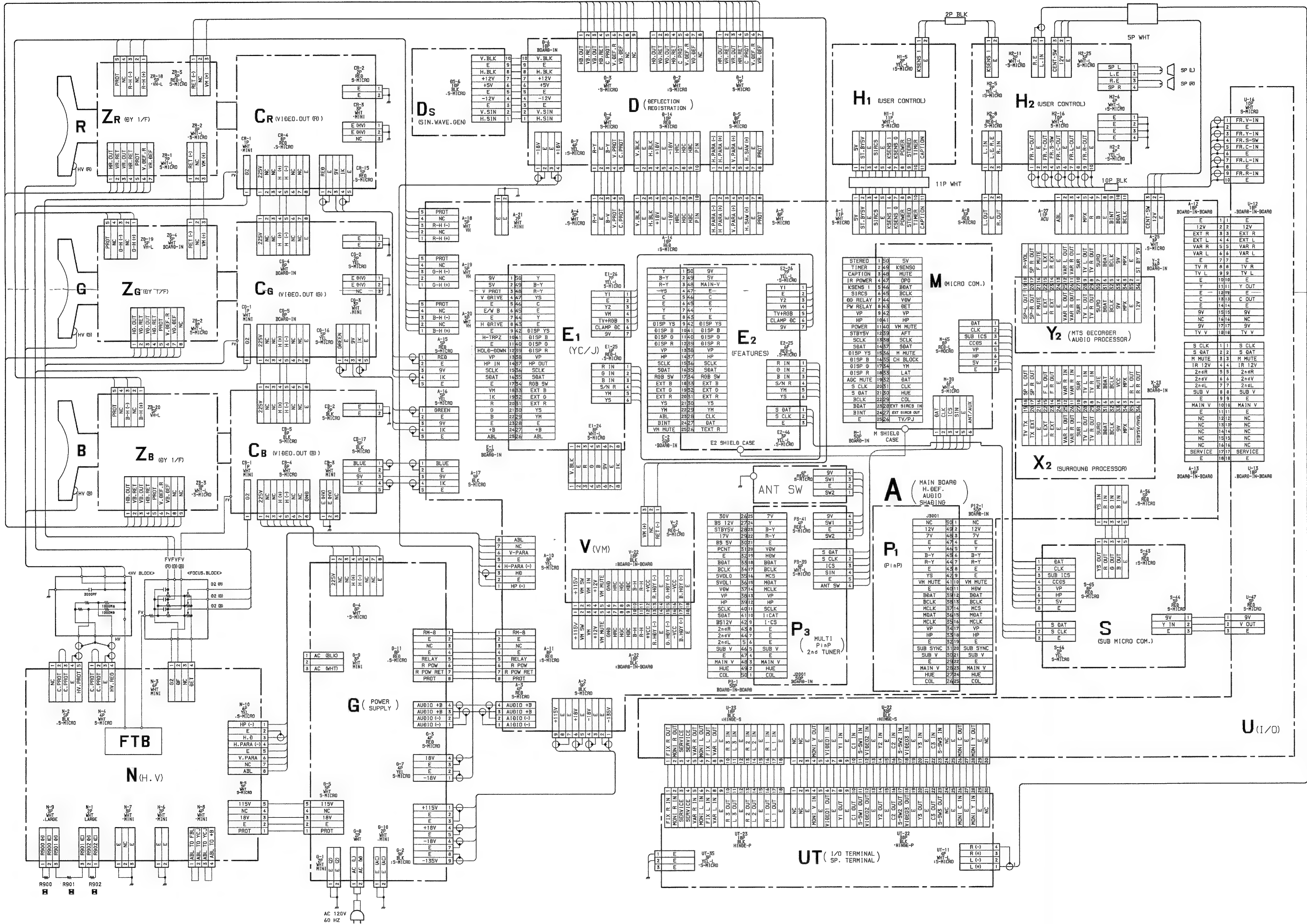
KP-46V15/46V16/61V15
KP-53V15/53V16/61V15
RM-Y115

KP-46V15/46V16/61V15
KP-53V15/53V16/61V15
RM-Y115

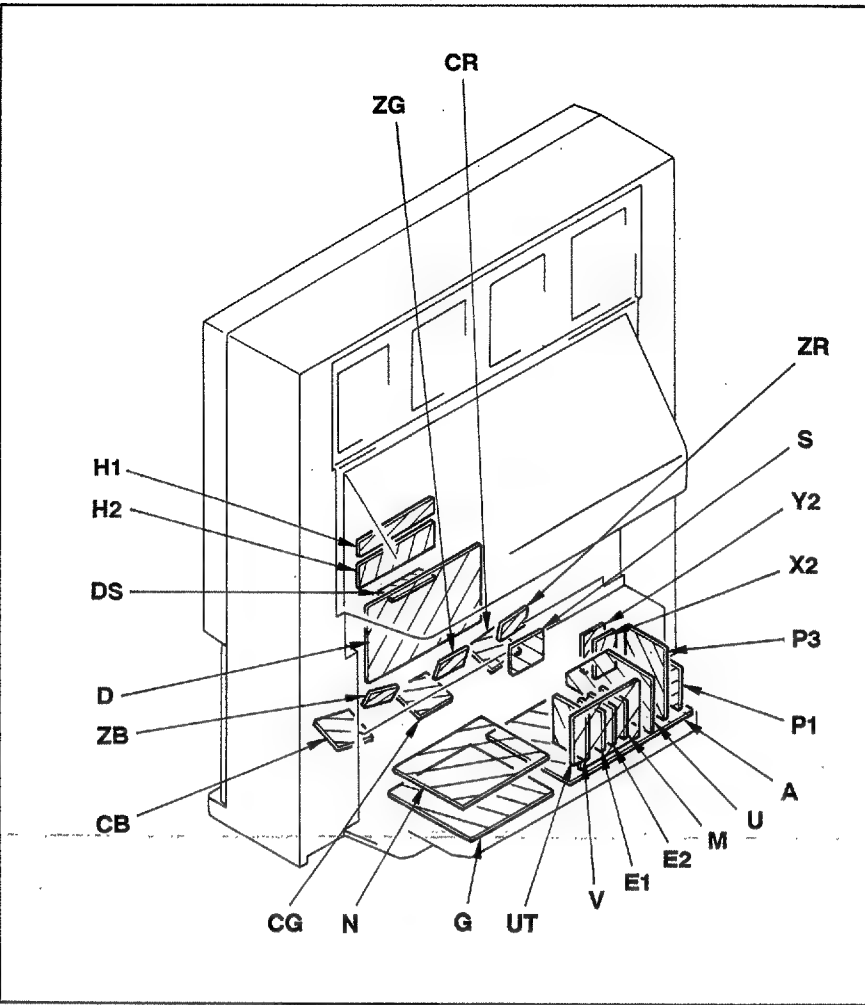


6-3. BLOCK DIAGRAM (3)





6-5. CIRCUIT BOARDS LOCATION



6-6. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

- Note:**
- All capacitors are in μF unless otherwise noted. pF : μF
 - 50 WV or less are not indicated except for electrolytic and tantalums.
 - All resistors are in ohms.
 - $k\Omega = 1000\Omega$, $M\Omega = 1000k\Omega$
 - Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm
Rating electrical power $\frac{1}{4}$ W

- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- --- : earth-chassis.
- The components identified by in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by and repeat the adjustment until the specified value is achieved. (Refer to R652, R652, R600, R601, and R602 adjustment on Page 53-56)
- When replacing the part in below table, be sure to perform the related adjustment.

Reference Information

RESISTOR : RN METAL FILM
: RC SOLID
: FPRD NONFLAMMABLE CARBON
: FUSE NONFLAMMABLE FUSIBLE
: RS NONFLAMMABLE METAL OXIDE
: RB NONFLAMMABLE CEMENT
: RW NONFLAMMABLE WIREWOUND
: \star ADJUSTMENT RESISTOR
: LF-8L MICRO INDUCTOR
COIL : TA TANTALUM
CAPACITOR : PS STYROL
: PP POLYPROPYLENE
: PT MYLAR
: MPS METALIZED POLYESTER
: MPP METALIZED POLYPROPYLENE
: ALB BIPOLAR
: ALT HIGH TEMPERATURE
: ALR HIGH RIPLE

- Readings are taken with a color-bar signal input.
- Readings are taken with a 10M Ω digital multimeter.
- Voltage are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- * : Can not be measured.
- Circled numbers are waveform references.
- --- : B+ bus.
- --- : B- bus.
- --- : signal path. (RF)

Note: The symbol display is on the component side.

The components identified by shading and mark are critical for safety. Replace only with part number specified.

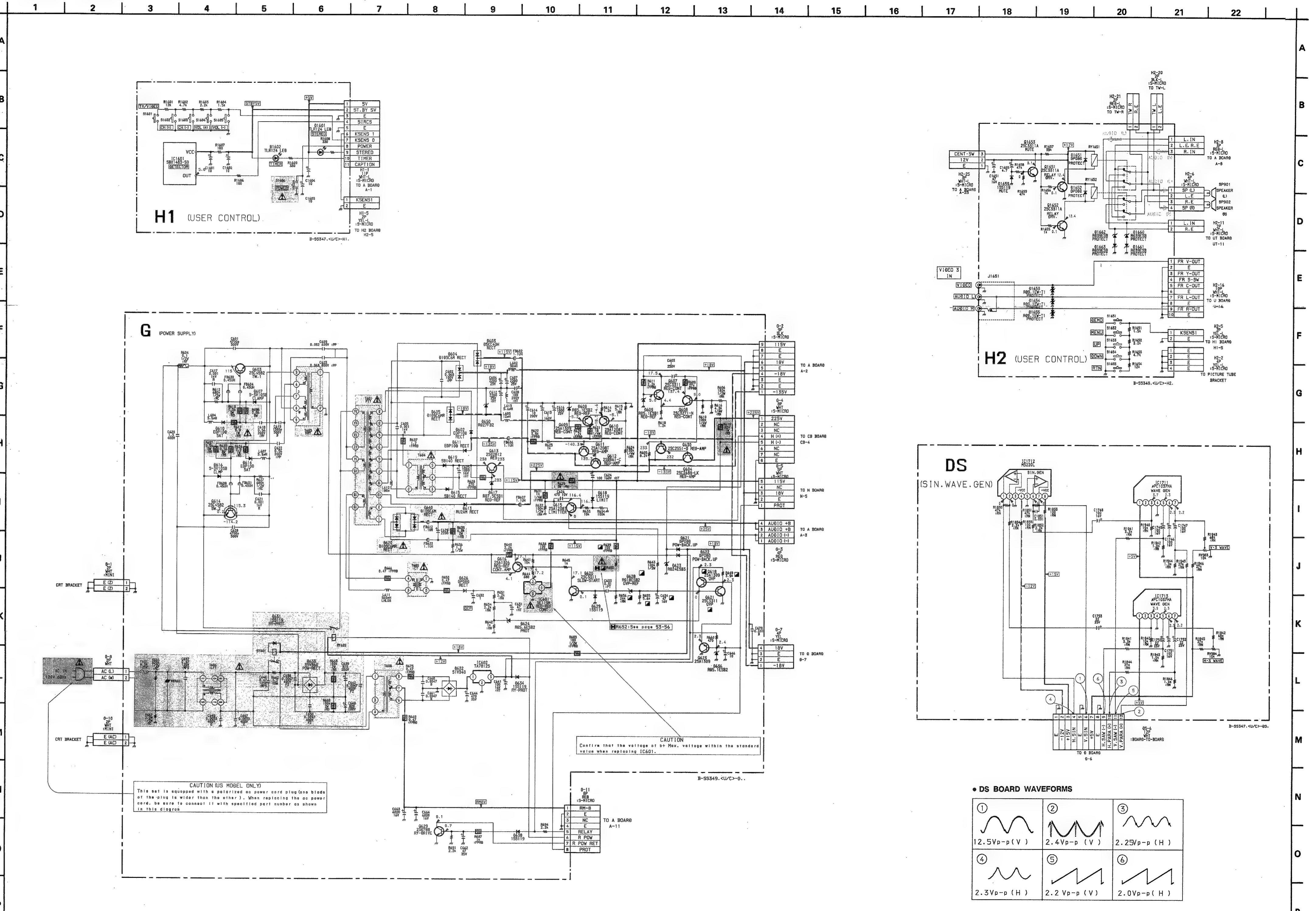
The symbol indicate fast operating fuse. Replace only with fuse of same rating as marked.

Note: Les composants identifiés par un trame et une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

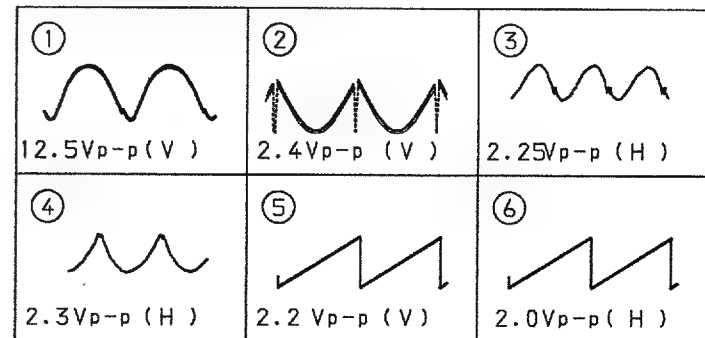
Le symbole indique une fusible à action rapide. Doit être remplacé par une fusible de même valeur, comme marqué.

Part replaced ()	Adjustment ()
HV Block IC803, IC805, D805, D807, C817, C818, C821, C836, C837, R824, R825, R827, R828, R834, R835, R836, R864, R865, R866, R902	HV Regulator (R902)
HV Block IC803, IC804, Q804, D806, D808, C809, C819, C820, C822, C823, C850, R907, R926, R929, R832, R833, R837, R838, R839, R840, R841, R892, R893, R900, R901	HV Hold down (R900, R901)
Q818, Q821, D828, C834, R839, R849, R852, R855, R856	OVP (R852)
① IC802, Q805, Q807, D811, D812, C810, C824, C825, C826, C827, C831, R810, R843, R844, R847, R848, R849, R850, R851, R852, R853, R854, R881	Beam current protector ① R852 ② R852
② IC804, Q804, Q808, D808, D809, C809, C828, C829, C830, C831, R807, R839, R840, R841, R847, R848, R849, R850, R851, R852, R855, R856, R857, R881	

(1) SCHEMATIC DIAGRAMS OF G, H1, H2 AND DS BOARDS



• DS BOARD WAVEFORMS



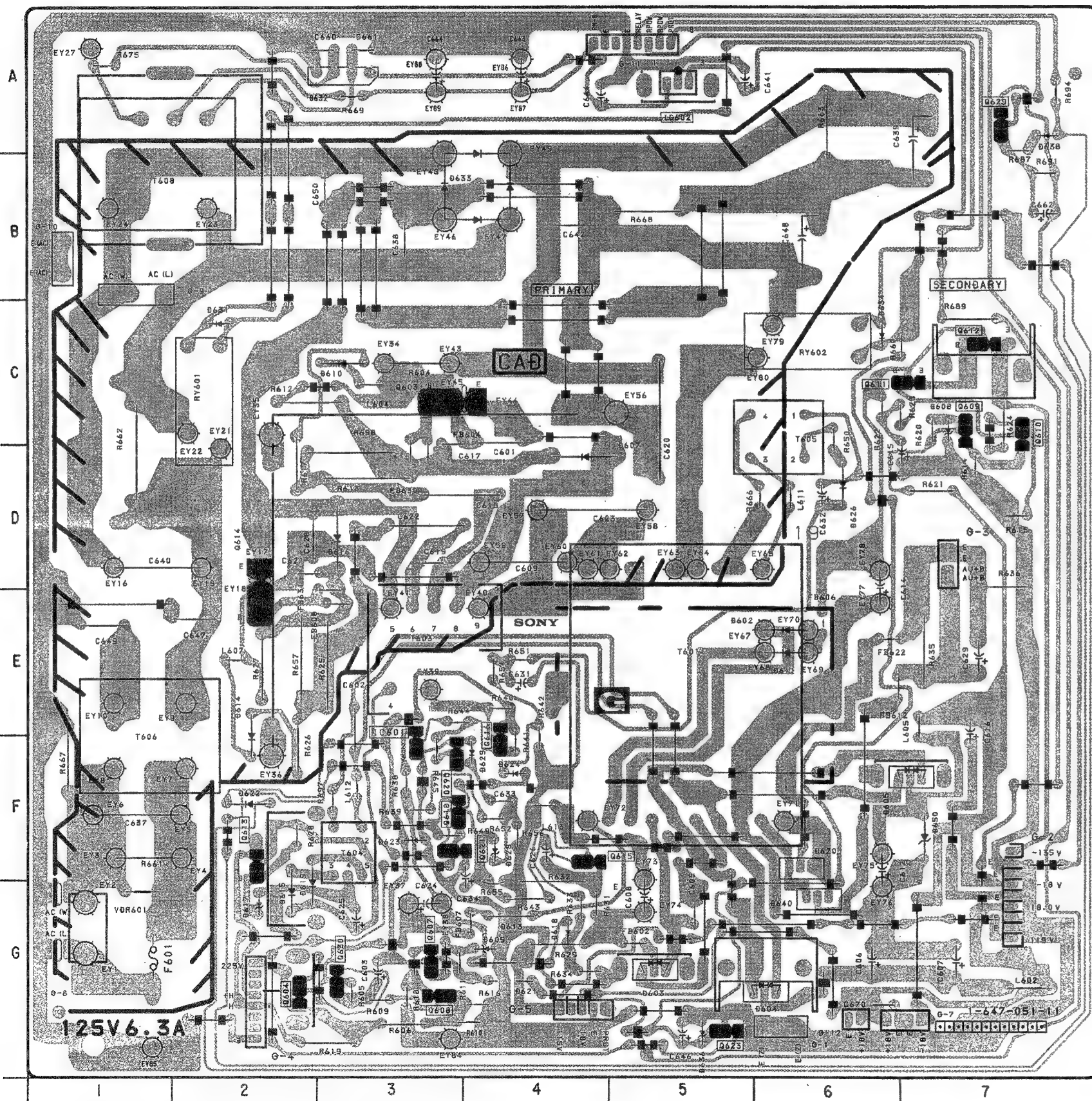
G [POWER SUPPLY]

H1 [USER CONTROL]

H2 [USER CONTROL]

DS [SIIN,WAVE, GEN]

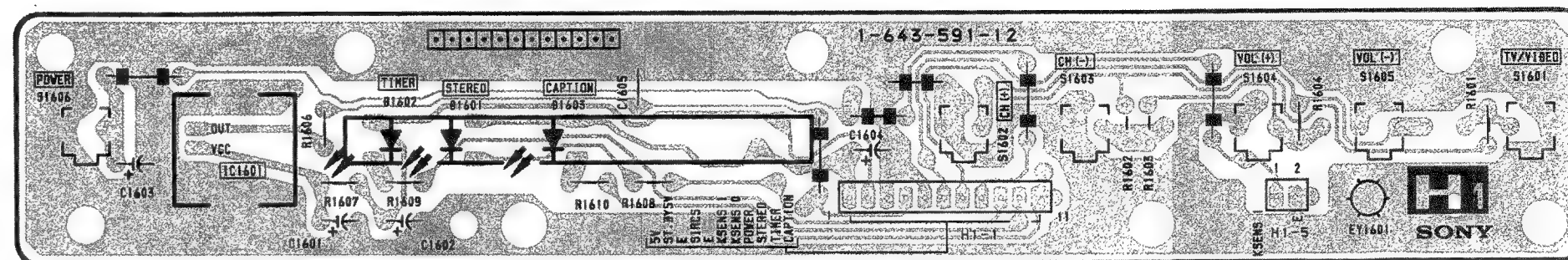
- G Board -



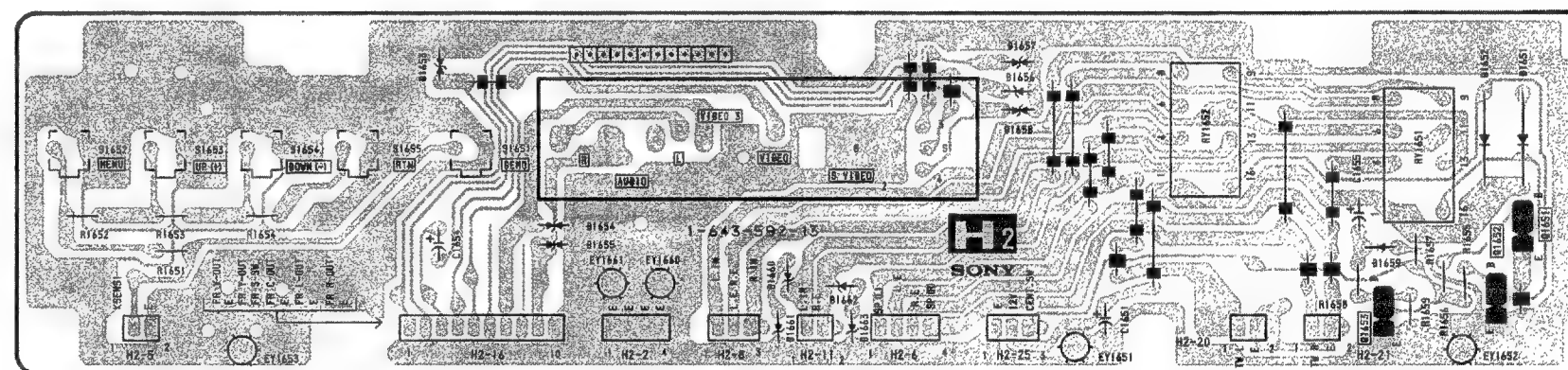
G Board

IC	
IC601	E-3
IC602	A-5
TRANSISTOR	
Q603	C-3
Q604	G-2
Q607	G-3
Q608	G-3
Q609	C-7
Q610	C-7
Q611	C-7
Q612	C-7
Q613	F-2
Q614	D-2
Q615	F-4
Q616	E-4
Q618	F-3
Q620	F-3
Q621	F-3
Q623	G-5
Q629	A-7
Q630	G-3
DIODE	
D602	E-6
D603	G-5
D604	G-6
D605	F-7
D607	D-4
D608	C-7
D609	G-4
D610	C-3
D611	E-6
D613	G-4
D614	E-2
D615	G-2
D616	D-3
D617	G-2
D618	G-4
D619	F-2
D620	F-6
D621	G-4
D622	F-2
D623	F-3
D624	F-4
D626	D-6
D628	F-4
D629	F-4
D631	C-2
D632	A-3
D633	B-4
D634	C-6
D636	G-5
D638	A-7
D640	G-6
D650	F-7

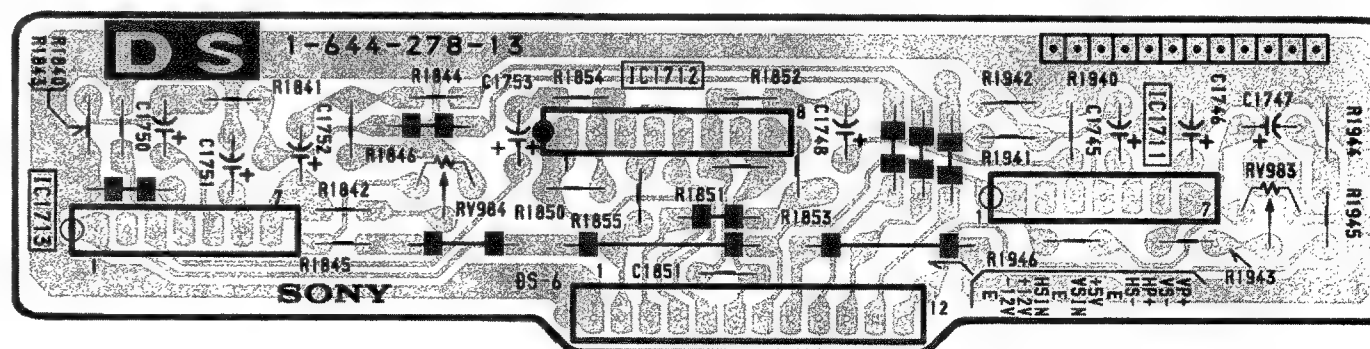
- H1 Board -



- H2 Board -

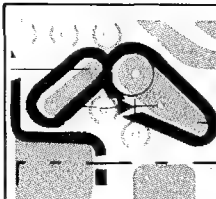


- DS Board -



A Board

IC			
IC201	D-5	D211	E-4
IC204	D-6	D213	A-6
IC205	E-1	D214	A-5
IC206	B-6	D215	E-2
IC207	A-2	D216	E-1
IC506	G-9	D217	E-1
IC1401	C-5	D219	G-5
IC1601	F-9	D220	E-5
		D221	B-1
		D222	D-6
		D223	D-6
TRANSISTOR		D501	C-7
Q201	C-4	D502	C-7
Q202	G-3	D503	B-9
Q203	G-9	D504	C-7
Q501	C-9	D505	F-7
Q502	B-9	D506	F-7
Q504	G-7	D507	B-8
Q505	C-9	D509	C-7
Q506	C-9	D510	A-1
Q507	D-10	D511	A-2
Q508	B-10	D512	C-9
Q509	G-8	D513	D-7
Q510	C-8	D514	G-7
Q511	A-2	D515	G-8
Q512	A-2	D1401	A-3
Q1401	B-4	D1402	B-4
Q1402	C-7	D1403	C-7
Q1407	B-5	D1404	A-3
Q1408	B-4	D1405	A-3
Q1601	E-9	D1406	B-5
Q1602	E-10	D1407	A-4
Q1603	E-10	D1408	B-5
Q1604	E-10	D1409	A-4
Q1605	E-9	D1410	D-4
Q1606	E-9	D1607	G-10
Q1620	D-8	D1608	G-10
DIODE			
D203	G-9		
D204	B-2		
D205	E-4		
D206	D-7		
D207	D-7		
D208	E-7		
D209	B-6		

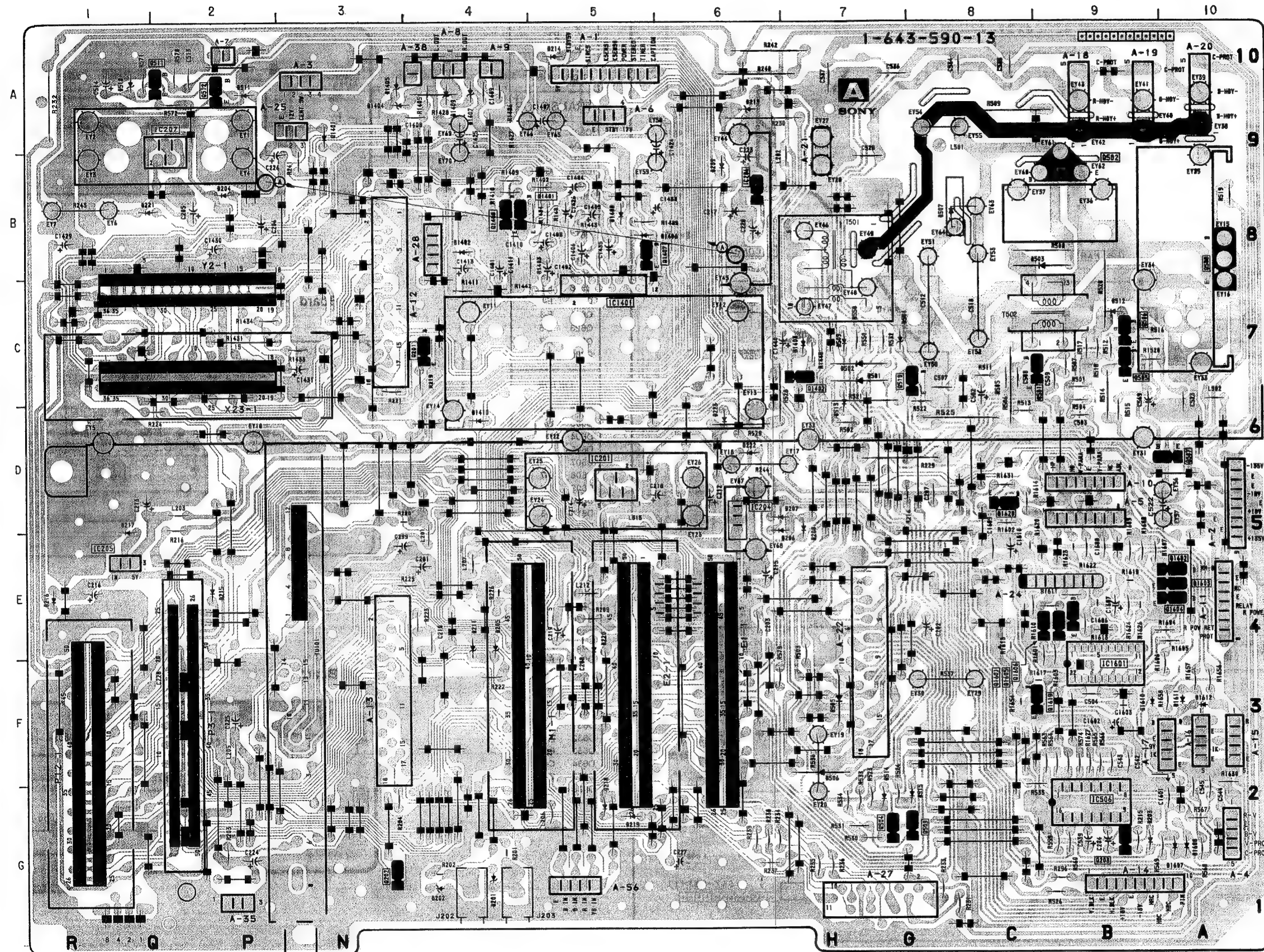


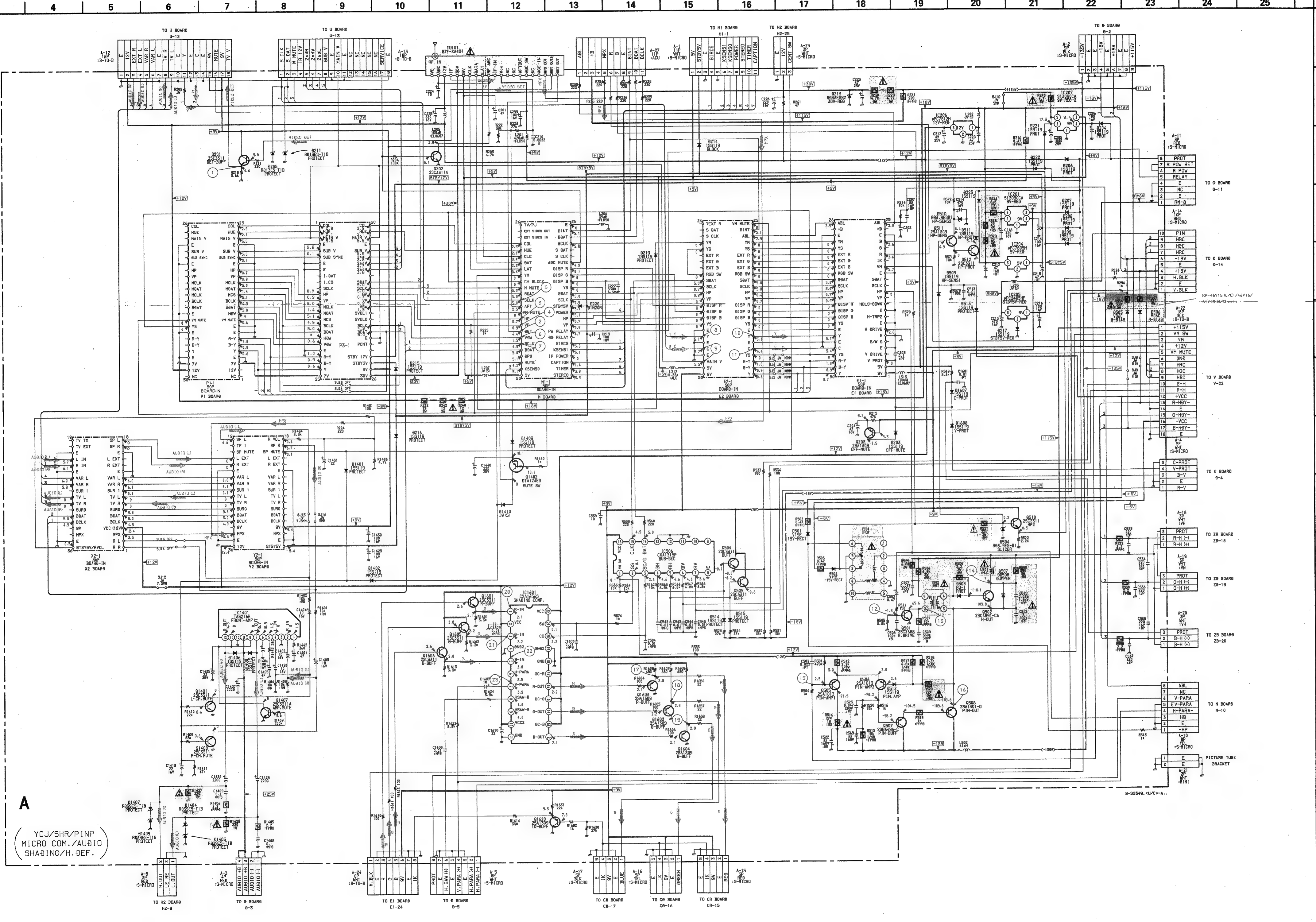
NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

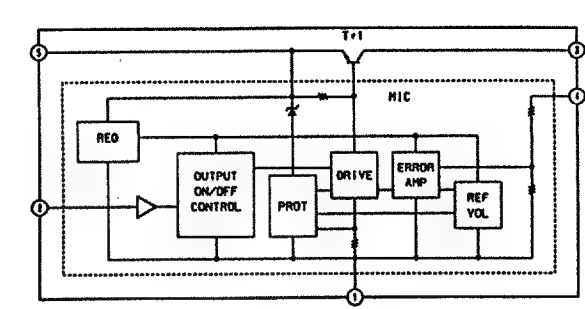
A YCJ/SHR/PINP,
MICRO COM./AUDIO,
SHADING/H. DEF.

— A Board —

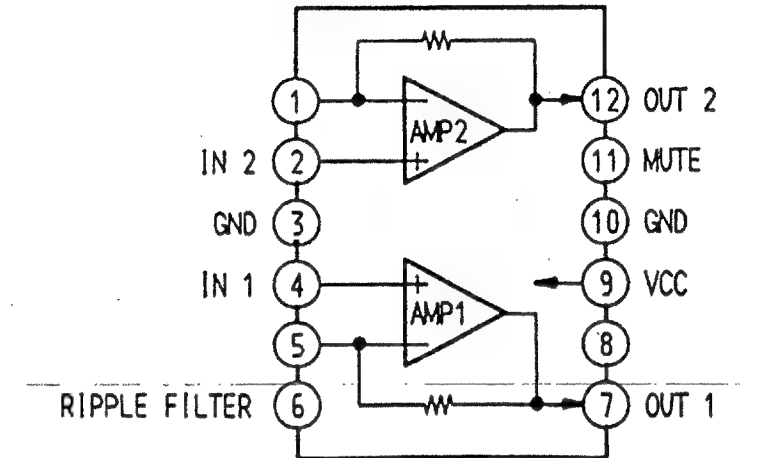




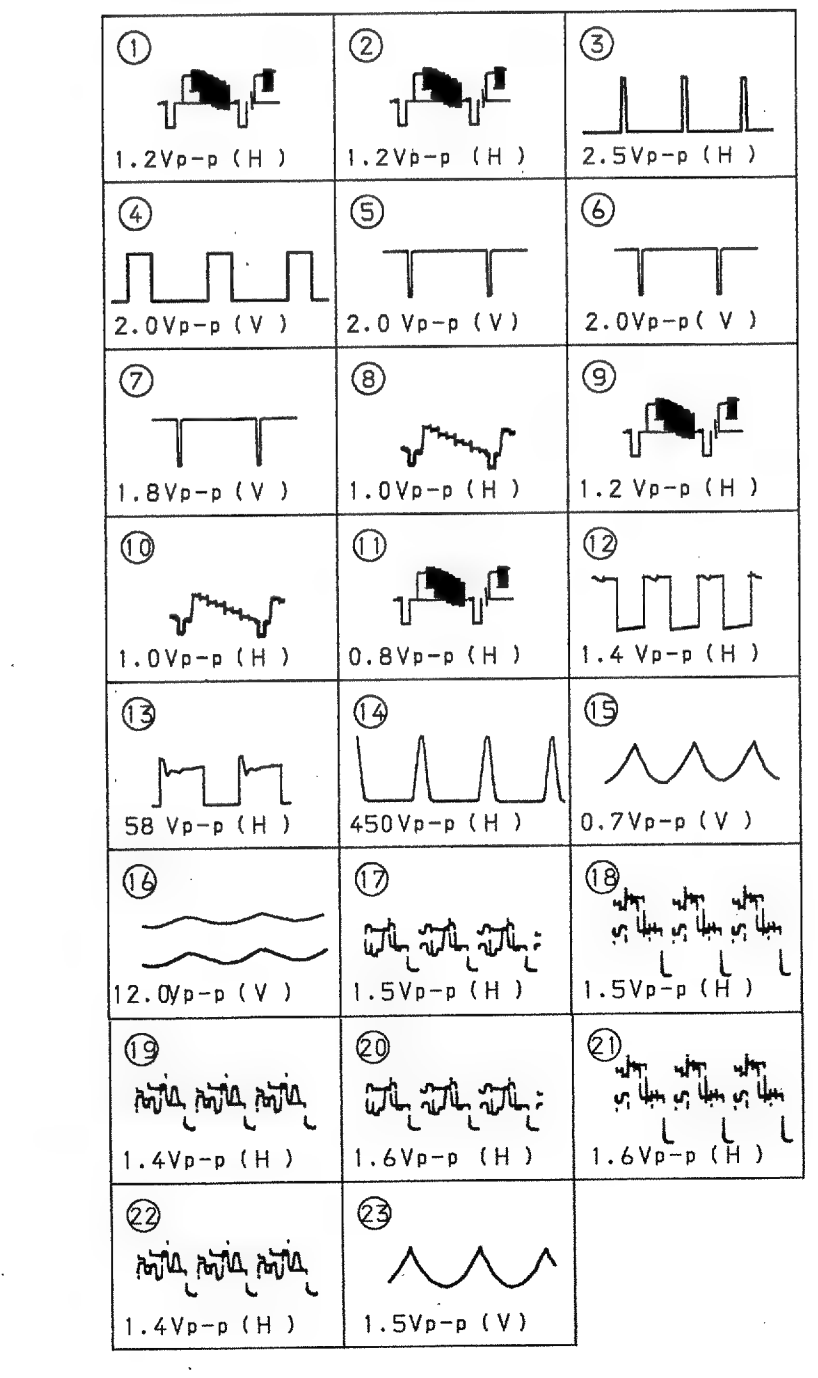
A Board IC201, 207 SI-3090CA



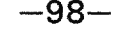
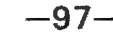
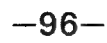
A Board IC401 TA8216H



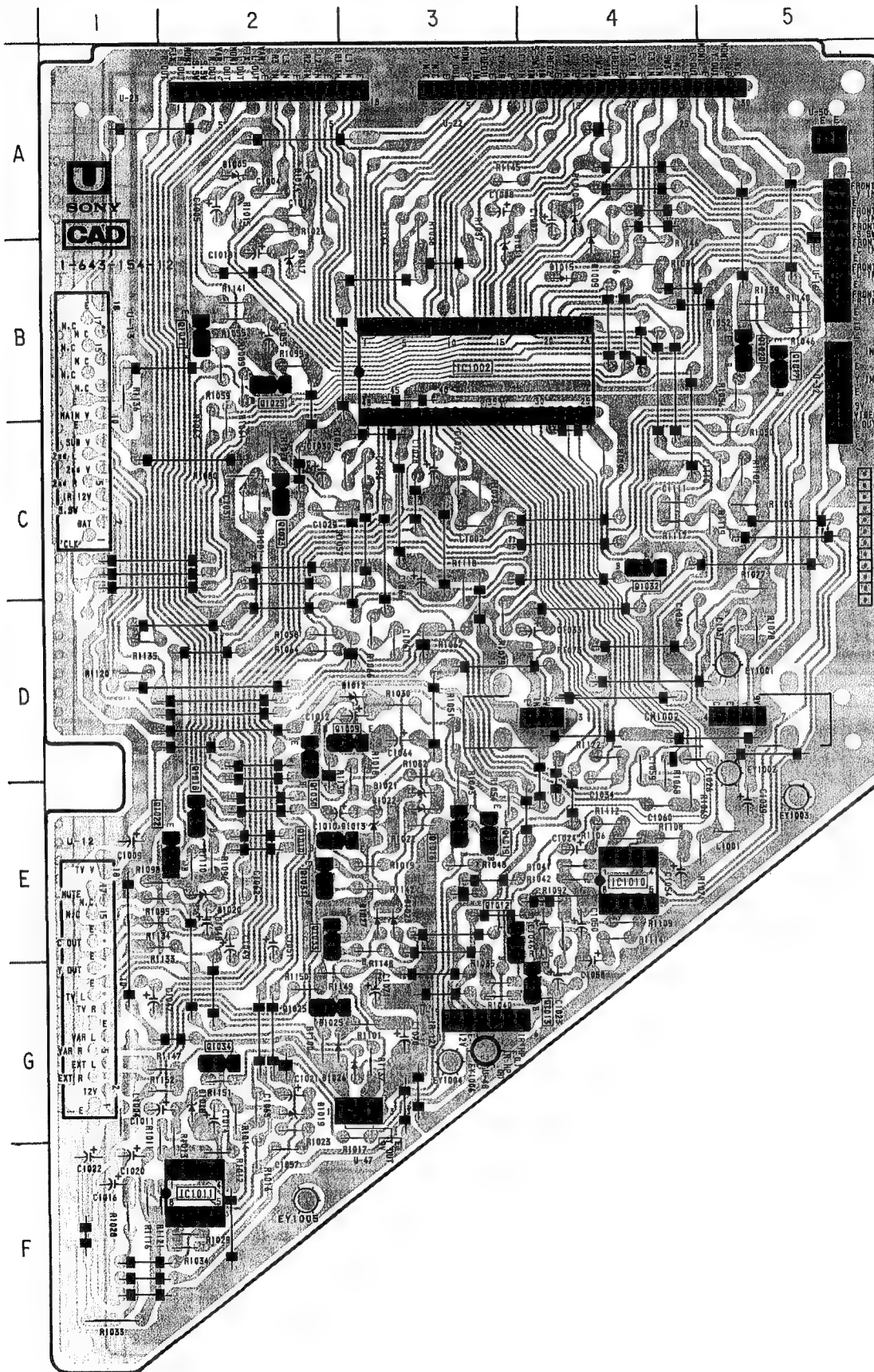
• A BOARD WAVEFORMS



A
(YCJ/SHR/PINP
MICRO COM./AUB10
SHADING/H.DEF.)



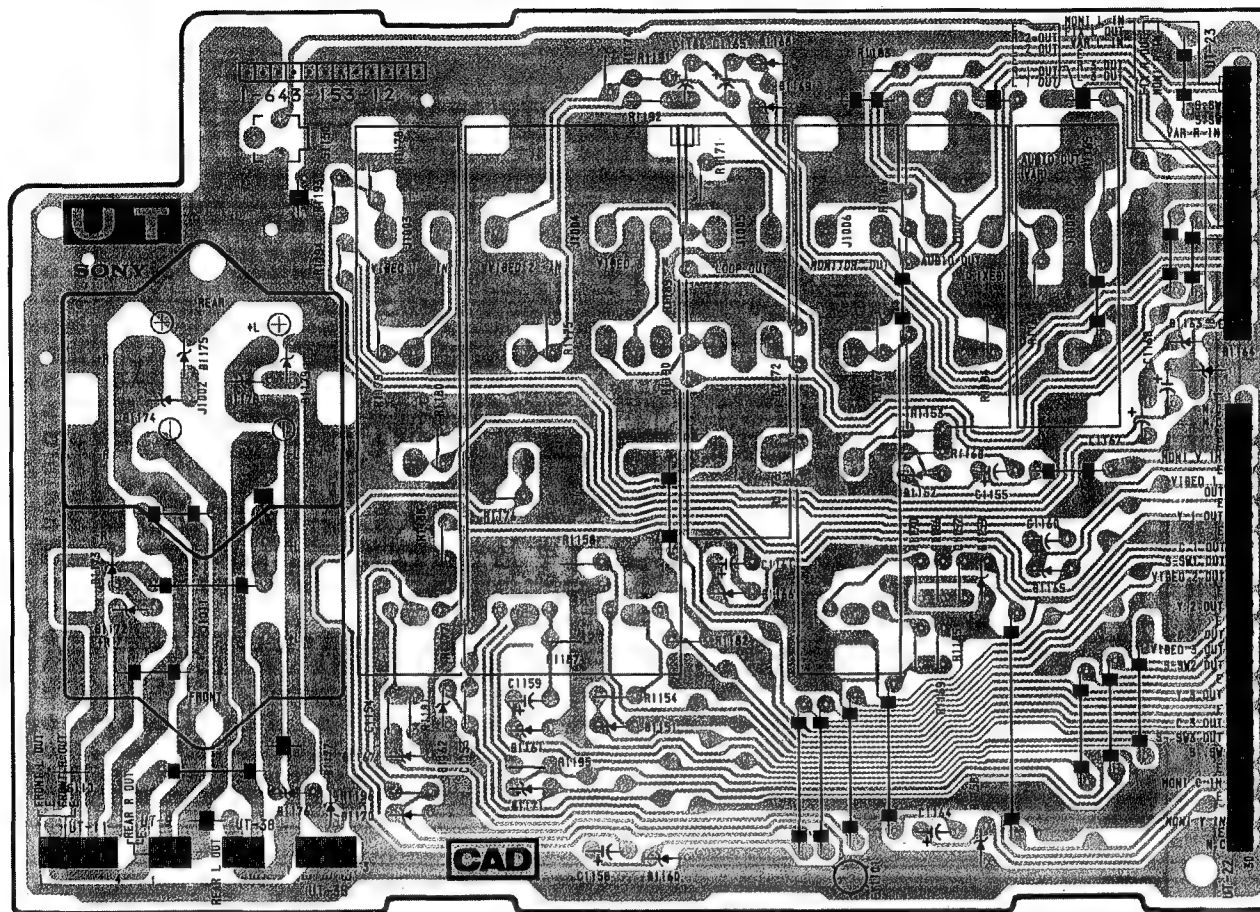
U Board



—99—

Ut [IN/OUT TERMINAL
 SP. TERMINAL]

— UT Board —



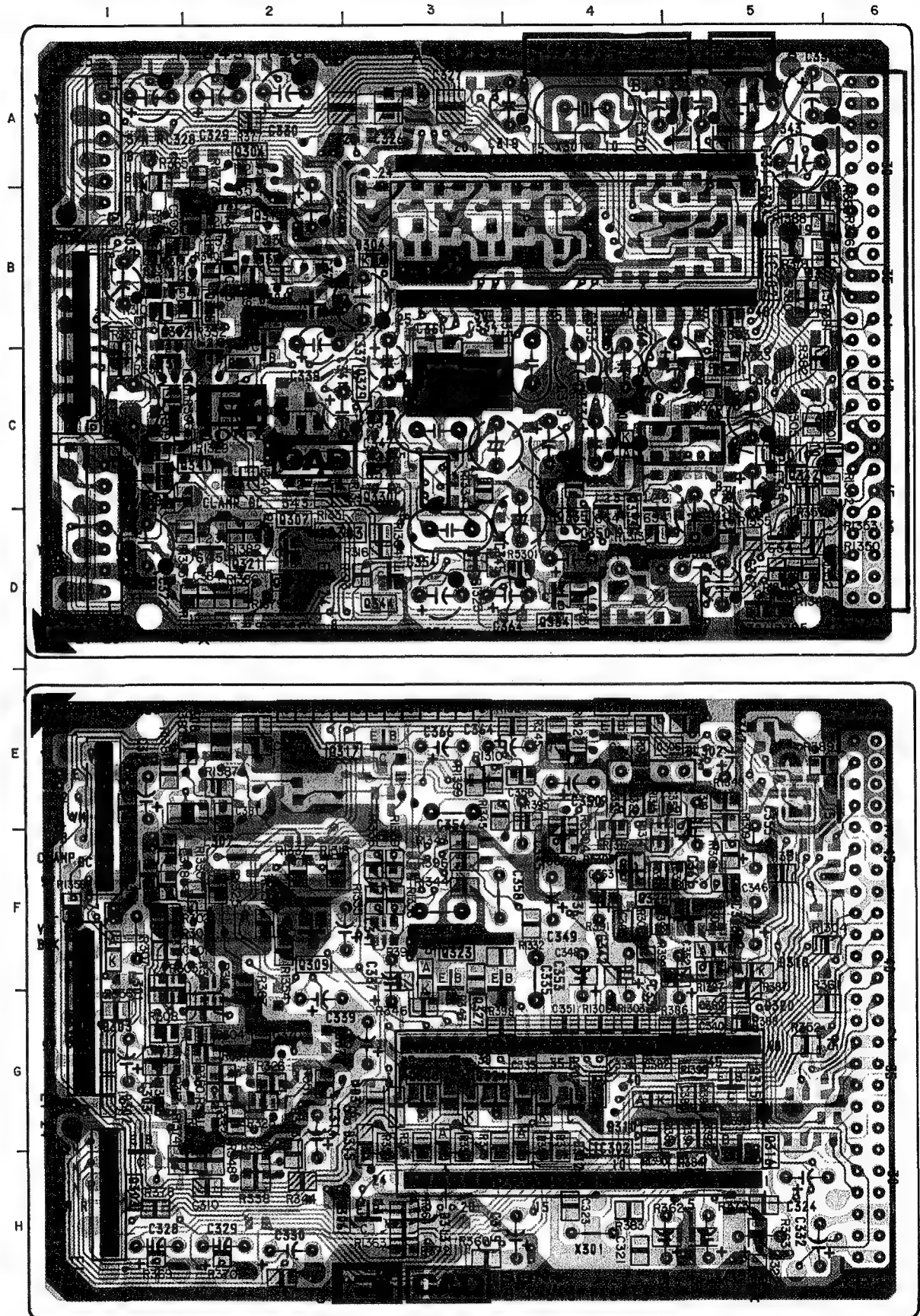
E1

[Y/C JUNGLE]

— E1 Board —

E1 Board

IC	
IC301	C-5
IC302	B-4, G-4
IC303	C-3
TRANSISTOR	
Q301	C-2
Q302	C-1
Q303	G-1
Q304	A-2
Q305	B-1
Q306	H-3
Q307	C-2
Q309	F-2
Q310	D-2
Q311	B-2
Q312	B-2
Q314	B-2
Q315	G-5
Q316	G-5
Q317	E-3
Q321	D-2
Q322	G-4
Q323	F-3
Q324	G-3
Q325	G-3
Q326	D-5
Q327	G-3
Q328	F-5
Q329	C-3
Q330	C-3
Q333	D-4
Q334	D-4
Q335	D-4
Q340	E-4
Q342	D-5
Q344	D-3
DIODE	
D301	F-1
D302	G-1
D303	G-1
D304	B-3
D305	F-3
D306	C-4
D307	G-4
D310	G-4
D312	G-4
D313	G-3
D314	G-3
D315	G-2
D316	G-3
D317	B-5
D318	F-5
D319	B-5
D320	G-5
D321	B-2

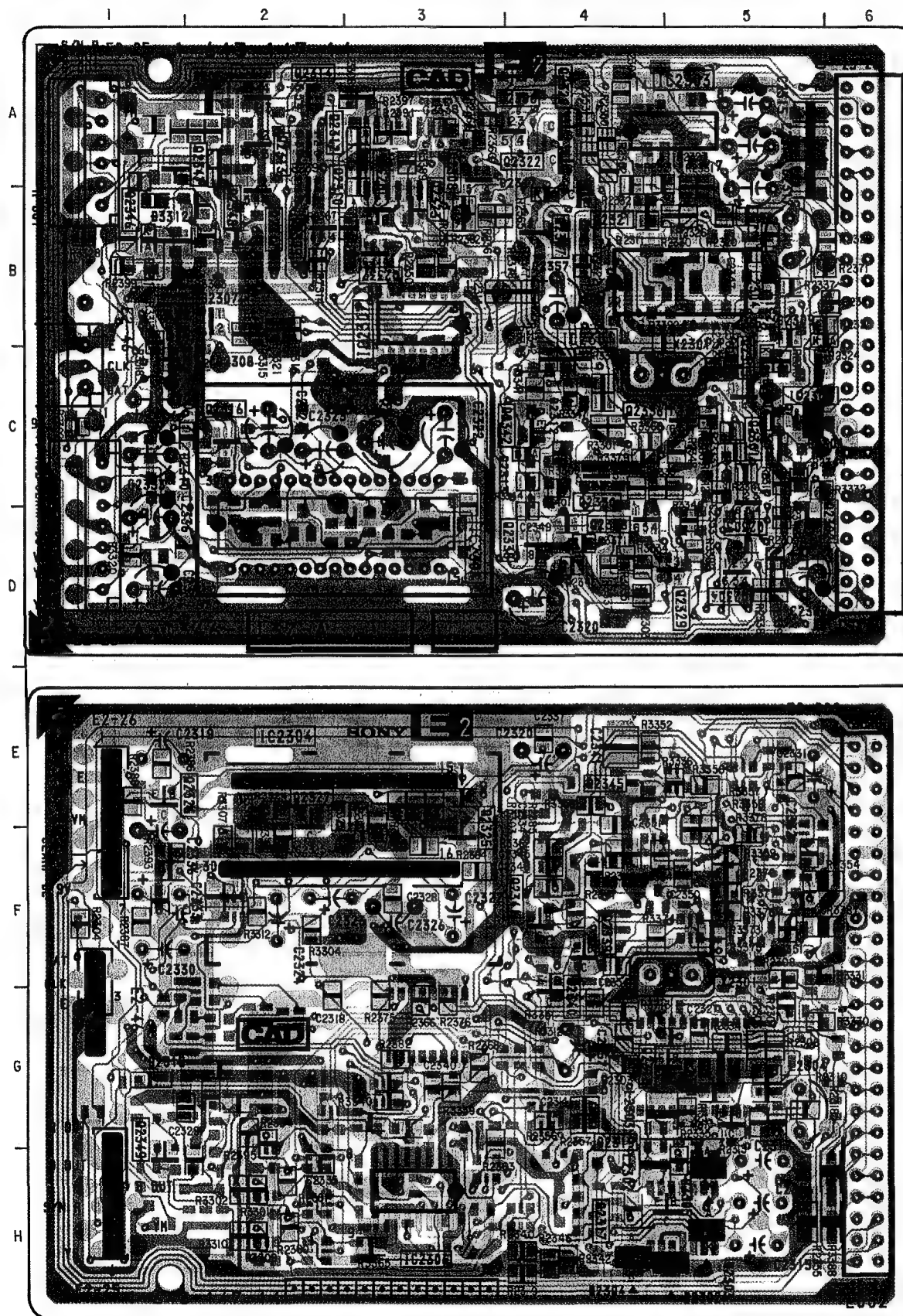


- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

E2

SHRPNSS CONT,
CHARACTOR GENERATER

— E2 Board —



E2 Board

IC

IC2031	B-4
IC2303	A-5
IC2304	D-3, E-2
IC2306	H-3
IC2307	B-3

TRANSISTOR

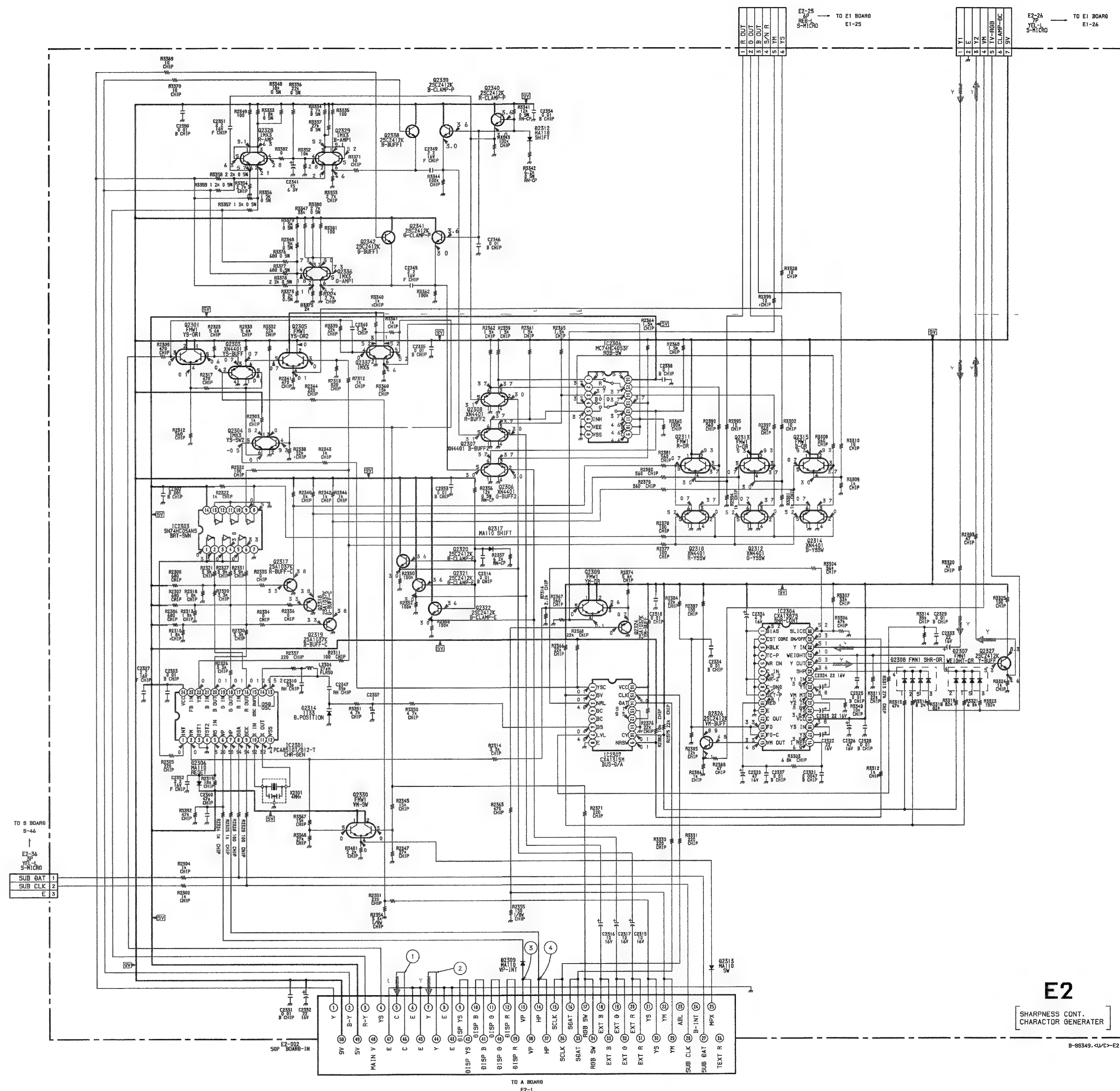
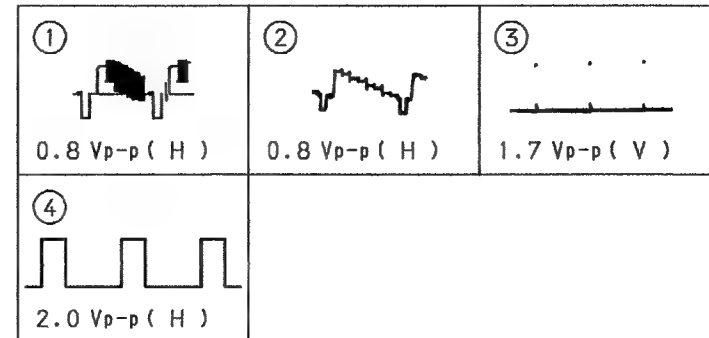
Q2301	C-5
Q2303	C-5
Q2304	D-5
Q2305	C-5
Q2306	A-3
Q2307	B-4
Q2308	A-3
Q2309	B-2
Q2310	A-2
Q2311	A-2
Q2312	A-2
Q2313	A-2
Q2314	A-2
Q2315	A-2
Q2317	H-4
Q2318	G-4
Q2319	G-5
Q2320	A-4
Q2321	A-4
Q2322	A-4
Q2324	B-3
Q2326	E-1
Q2327	E-2
Q2328	D-4
Q2329	D-4
Q2330	C-4
Q2336	C-5
Q2337	B-3
Q2339	F-4
Q2340	F-4
Q2341	F-4

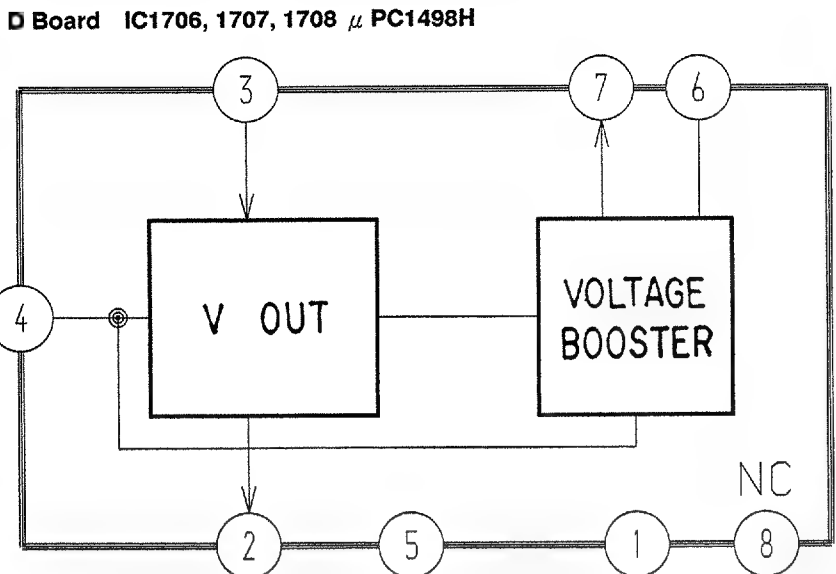
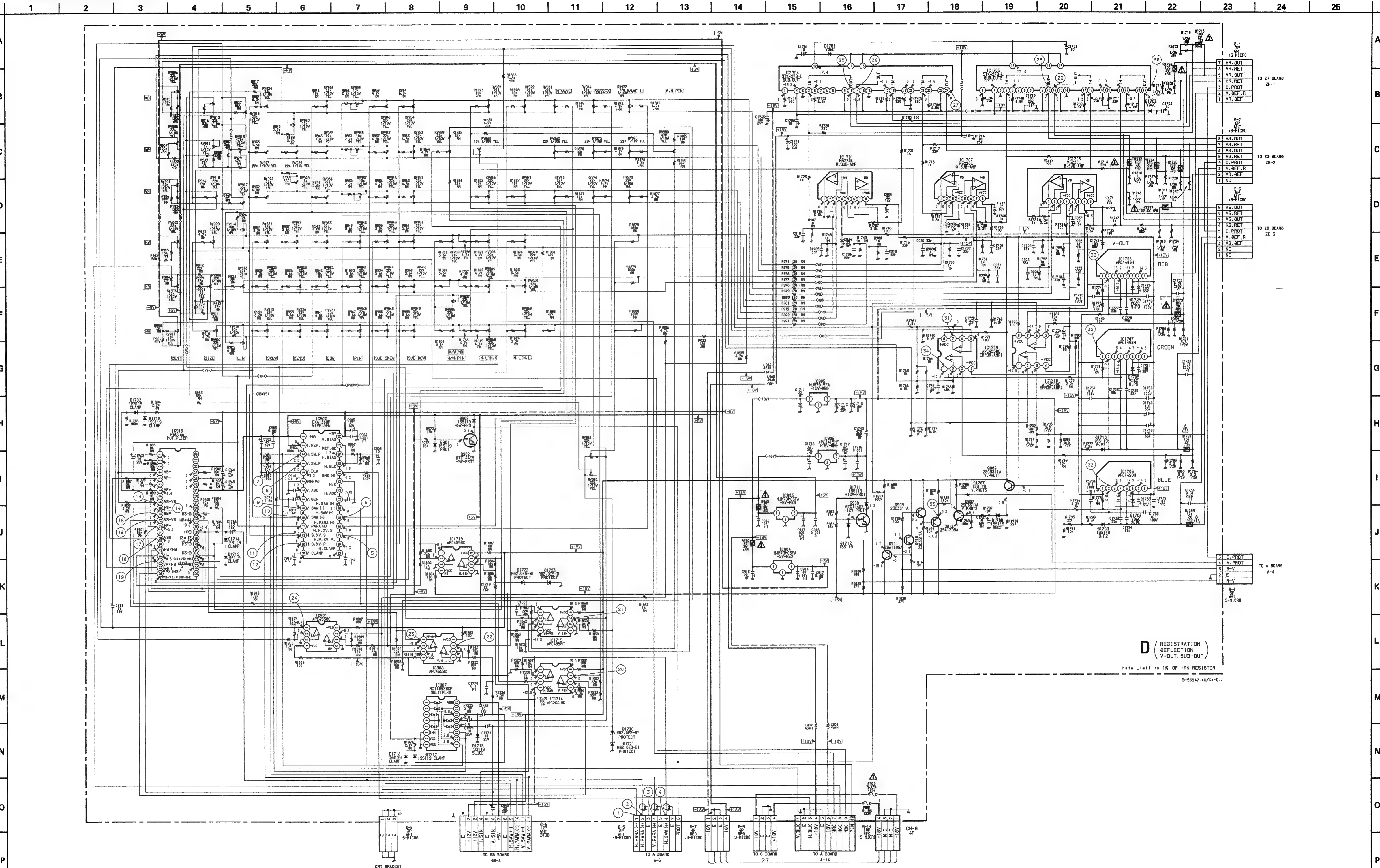
DIODE

D2306	C-5
D2307	B-2
D2308	B-2
D2309	B-5
D2312	C-4
D2313	C-4
D2314	B-5
D2317	A-4

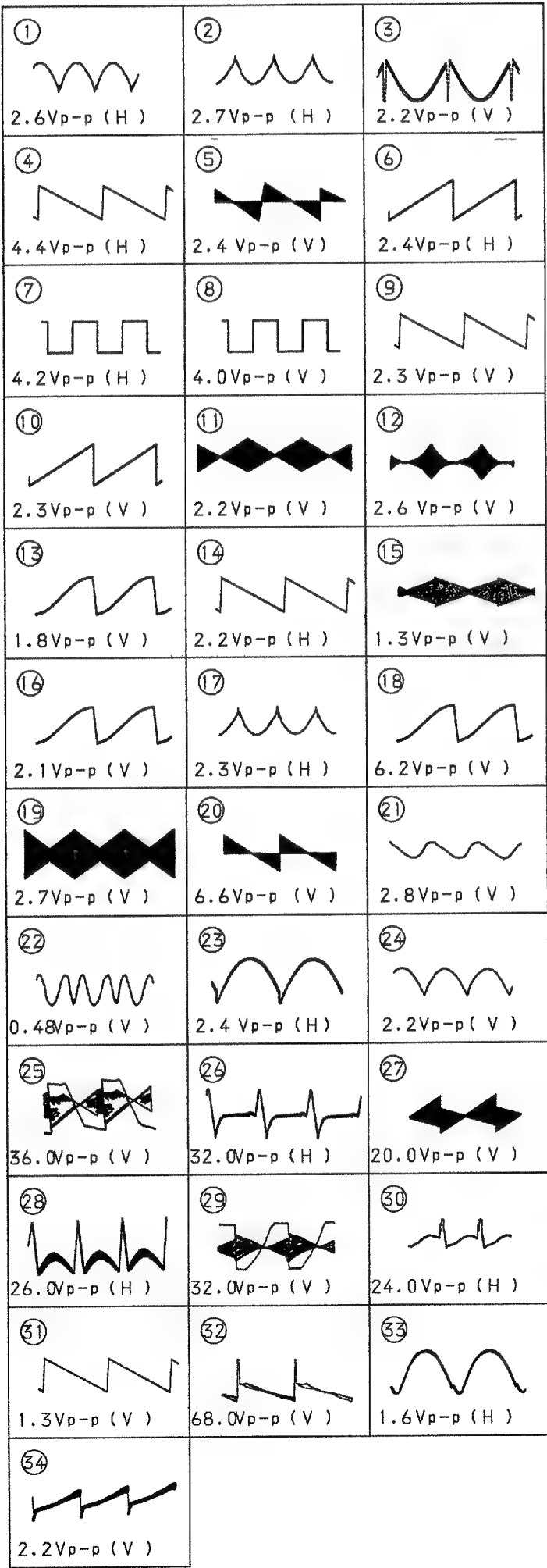
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

• E2 BOARD WAVEFORMS



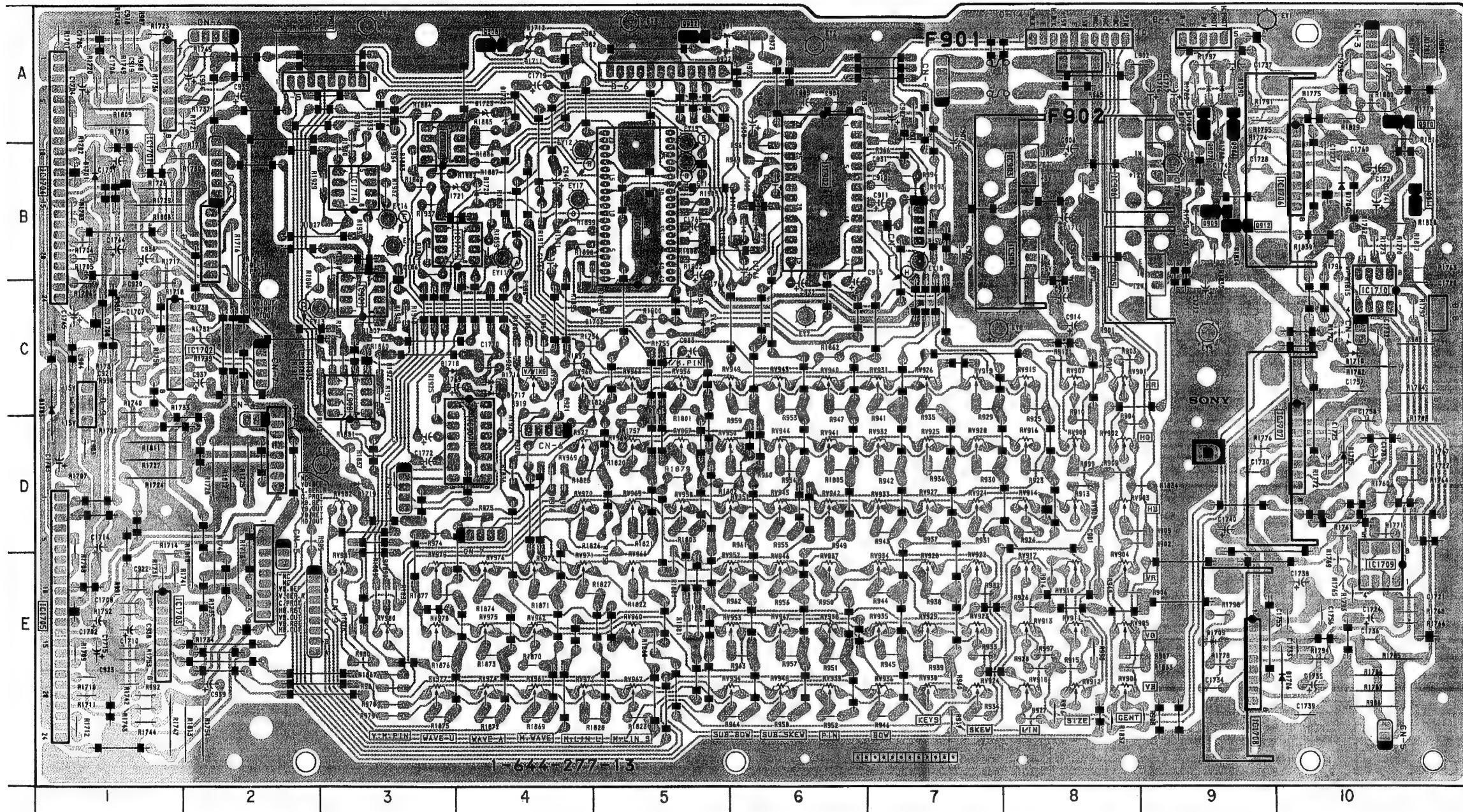


• D BOARD WAVEFORMS



D REGISTRATION,
DEFLECTION,
V-OUT, SUB-OUT

- D Board -



D Board

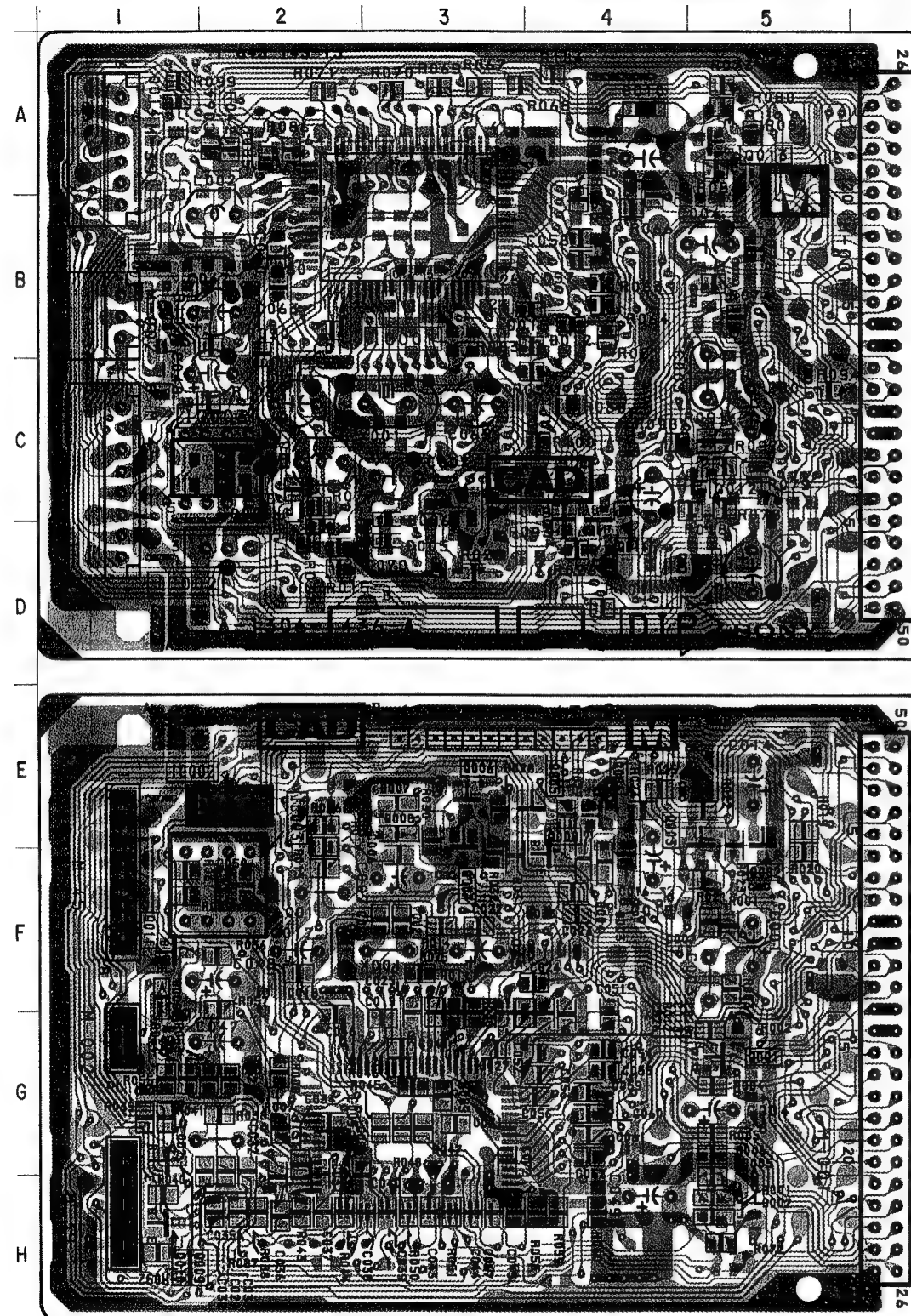
IC	VARIABLE RESISTOR	RV962	E-4
IC901	C-3	RV901	C-9
IC902	B-6	RV902	D-9
IC903	B-8	RV903	D-9
IC904	B-8	RV904	E-9
IC905	B-9	RV905	D-9
IC906	B-9	RV906	E-9
IC907	D-4	RV907	C-8
IC908	C-3	RV908	D-8
IC910	B-5	RV909	D-8
IC1701	A-1	RV910	E-8
IC1702	C-2	RV911	E-8
IC1703	E-1	RV912	E-8
IC1704	B-1	RV913	E-8
IC1705	E-1	RV914	D-8
IC1706	B-10	RV915	C-8
IC1707	D-10	RV916	D-8
IC1708	E-9	RV917	E-8
IC1709	E-10	RV918	E-8
IC1710	C-10	RV919	C-7
IC1714	B-3	RV920	D-7
IC1715	B-4	RV921	D-7
IC1718	B-4	RV922	E-7
TRANSISTOR		RV923	E-7
Q902	A-5	RV924	E-7
Q906	A-9	RV925	D-7
Q907	A-9	RV926	C-7
Q908	A-4	RV927	D-7
Q909	D-9	RV928	E-7
Q910	A-10	RV929	E-7
Q911	B-10	RV930	E-7
Q912	B-9	RV931	C-7
DIODE		RV932	D-7
D901	A-6	RV933	D-7
D902	A-6	RV934	E-7
D1701	B-1	RV935	E-7
D1702	C-5	RV936	E-7
D1703	C-1	RV937	E-6
D1704	B-10	RV938	E-6
D1075	D-10	RV939	E-6
D1706	E-10	RV940	C-6
D1707	A-9	RV941	D-6
D1708	A-9	RV942	D-6
D1709	E-9	RV943	C-6
D1710	C-10	RV944	D-6
D1711	A-4	RV945	D-6
D1712	A-4	RV946	E-6
D1713	C-5	RV947	E-6
D1714	B-6	RV948	E-6
D1715	B-6	RV949	C-6
D1716	C-4	RV950	D-6
D1717	C-4	RV951	D-6
D1718	C-4	RV952	E-6
D1720	B-4	RV953	E-6
D1721	B-4	RV954	E-6
D1722	A-4	RV955	C-5
D1723	A-4	RV956	C-5
		RV957	D-5
		RV958	D-5
		RV959	C-4
		RV960	E-5
		RV961	E-4
		RV962	E-4
		RV963	C-5
		RV964	D-5
		RV965	D-5
		RV966	E-5
		RV967	E-5
		RV968	C-5
		RV969	D-5
		RV970	D-5
		RV971	E-5
		RV972	E-5
		RV973	E-4
		RV974	E-4
		RV975	E-4
		RV976	E-4
		RV977	E-3
		RV978	E-3
		RV979	E-3
		RV980	E-3
		RV981	E-3
		RV982	D-3

M [MAIN CONTROL, μ -CON]

N [H. V.]

— M Board —

— N Board —



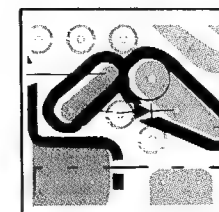
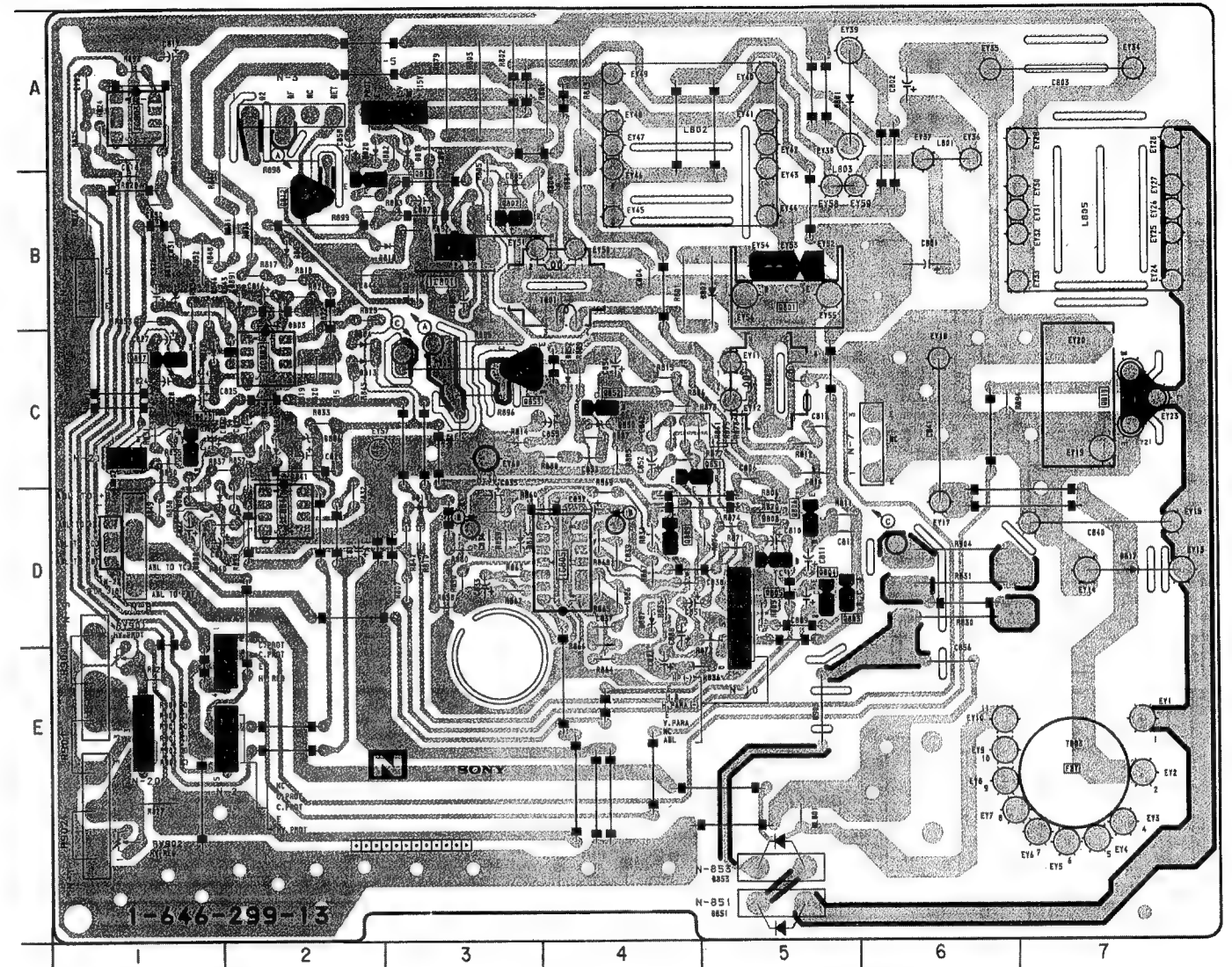
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

N Board

IC	
IC801	B-3
IC802	C-2
IC803	A-1
IC804	D-2
IC805	D-4
TRANSISTOR	
Q801	B-5
Q802	B-3
Q803	D-6
Q804	D-5
Q805	D-5
Q806	D-5
Q807	C-1
Q808	C-1
Q809	D-4
Q811	C-7
Q812	B-2
Q820	B-3
Q851	C-5
Q852	C-4
Q853	C-4
DIODE	
D801	A-6
D802	B-5
D803	B-2
D804	C-2
D805	B-2
D806	C-2
D807	D-4
D808	D-2
D809	D-1
D810	D-3
D811	B-1
D812	C-2
D813	C-2
D814	A-3
D815	D-3
D817	D-7
D818	B-3
D820	A-3
D850	C-4
D851	E-5
D852	C-4
D853	E-5
D891	B-2
D892	C-2

M Board

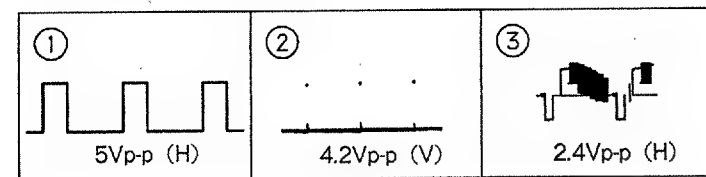
IC	DIODE
IC001	C-1
IC002	D-2, E-2
TRANSISTOR	
Q001	G-5
Q009	G-1
Q010	H-1
Q011	F-1
Q012	C-5
Q013	A-5
Q014	C-4
D001	H-5
D002	H-5
D009	F-1
D010	A-4
D011	D-2
D012	B-4
D014	A-1
D015	B-4



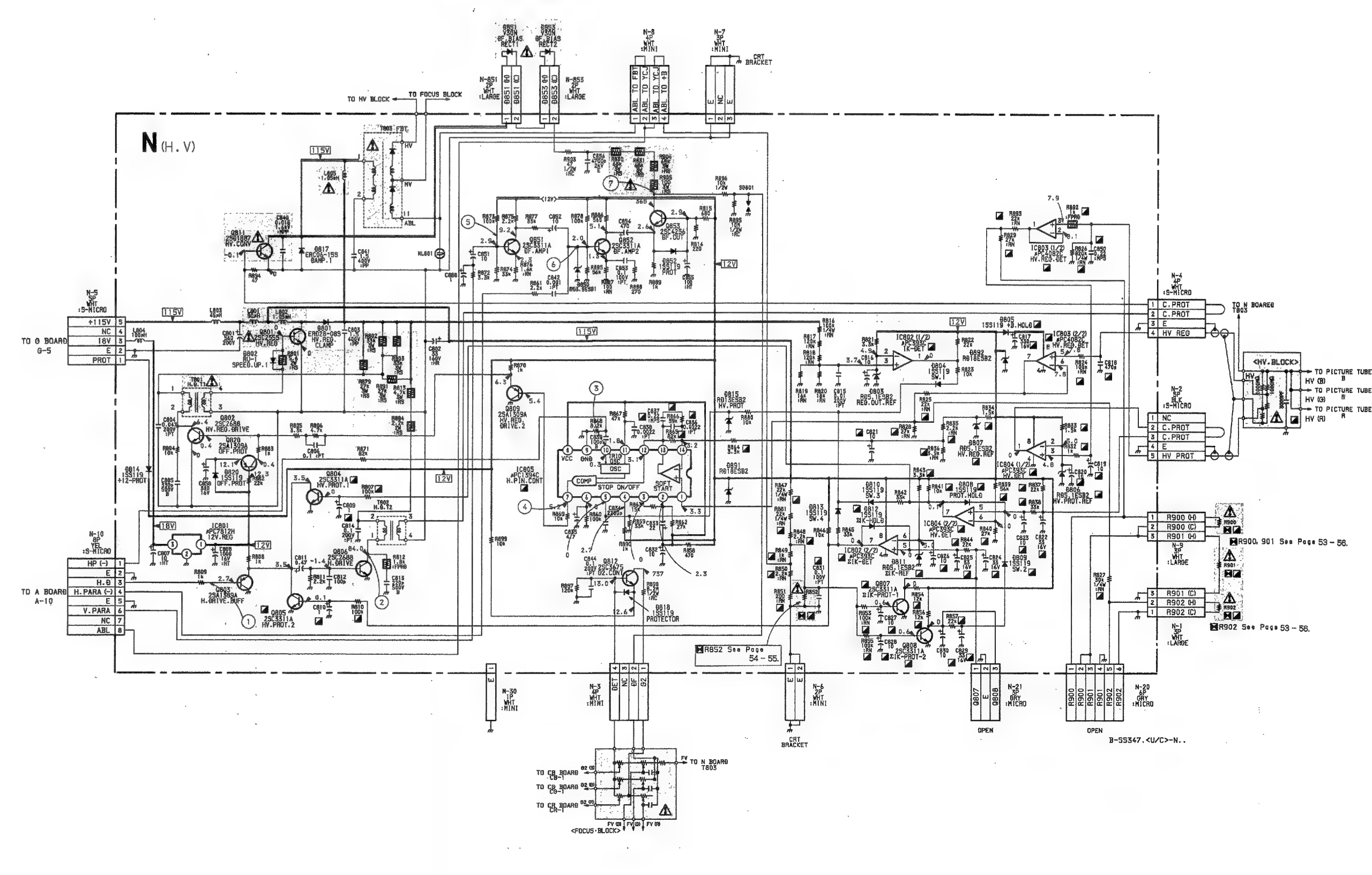
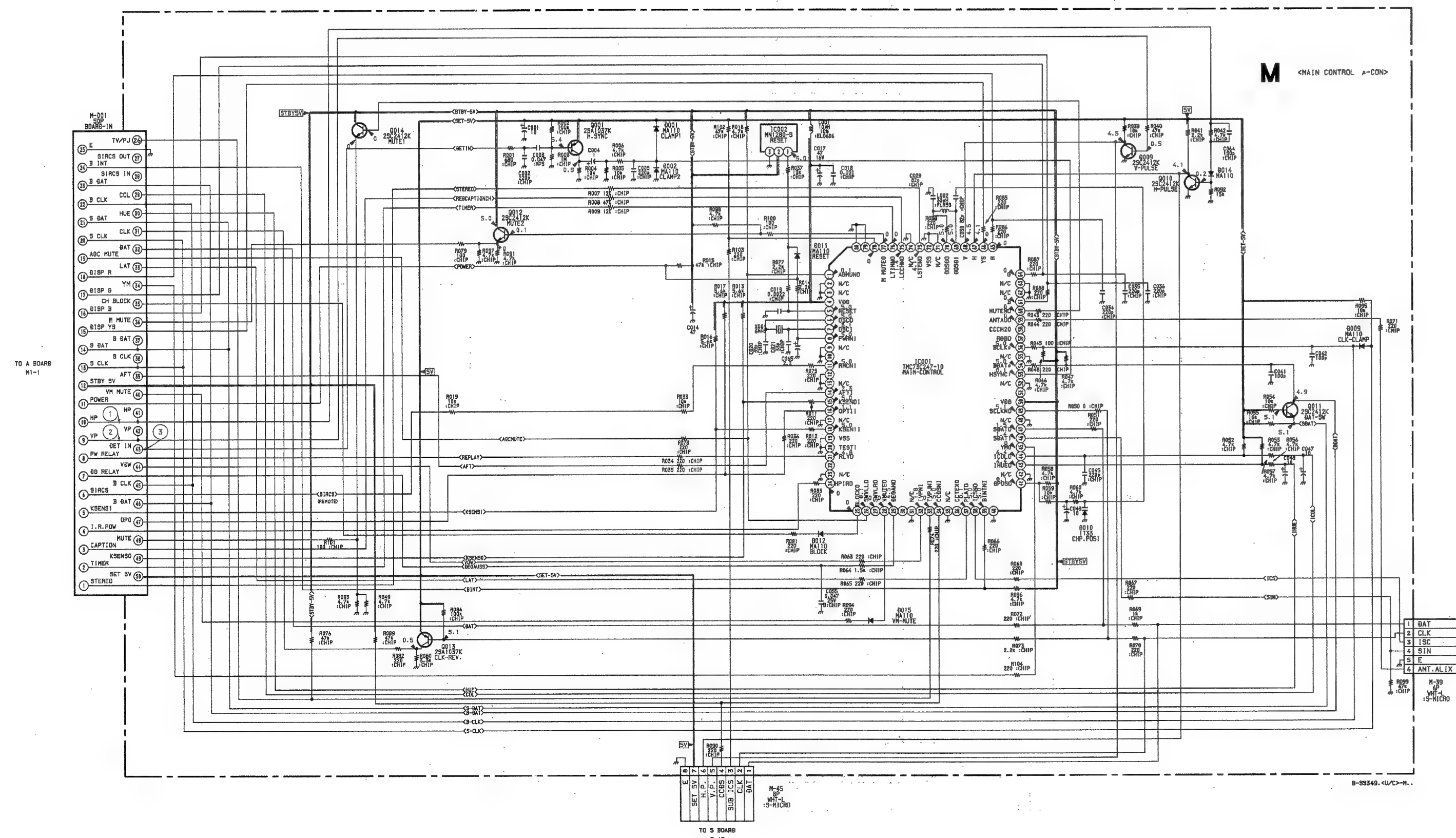
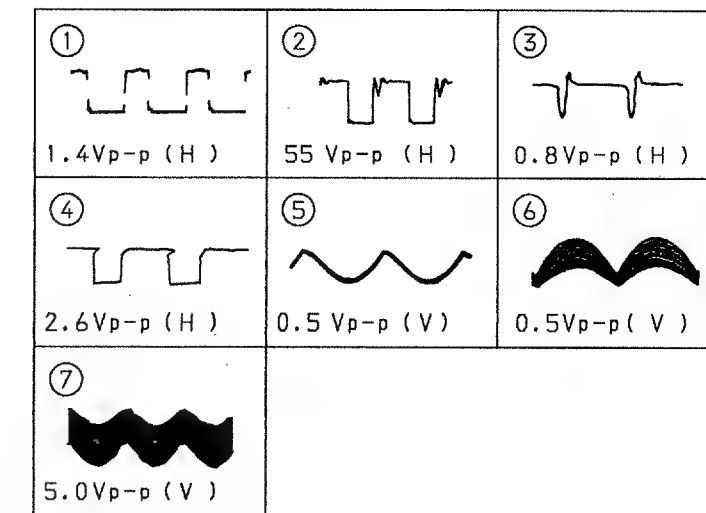
NOTE:

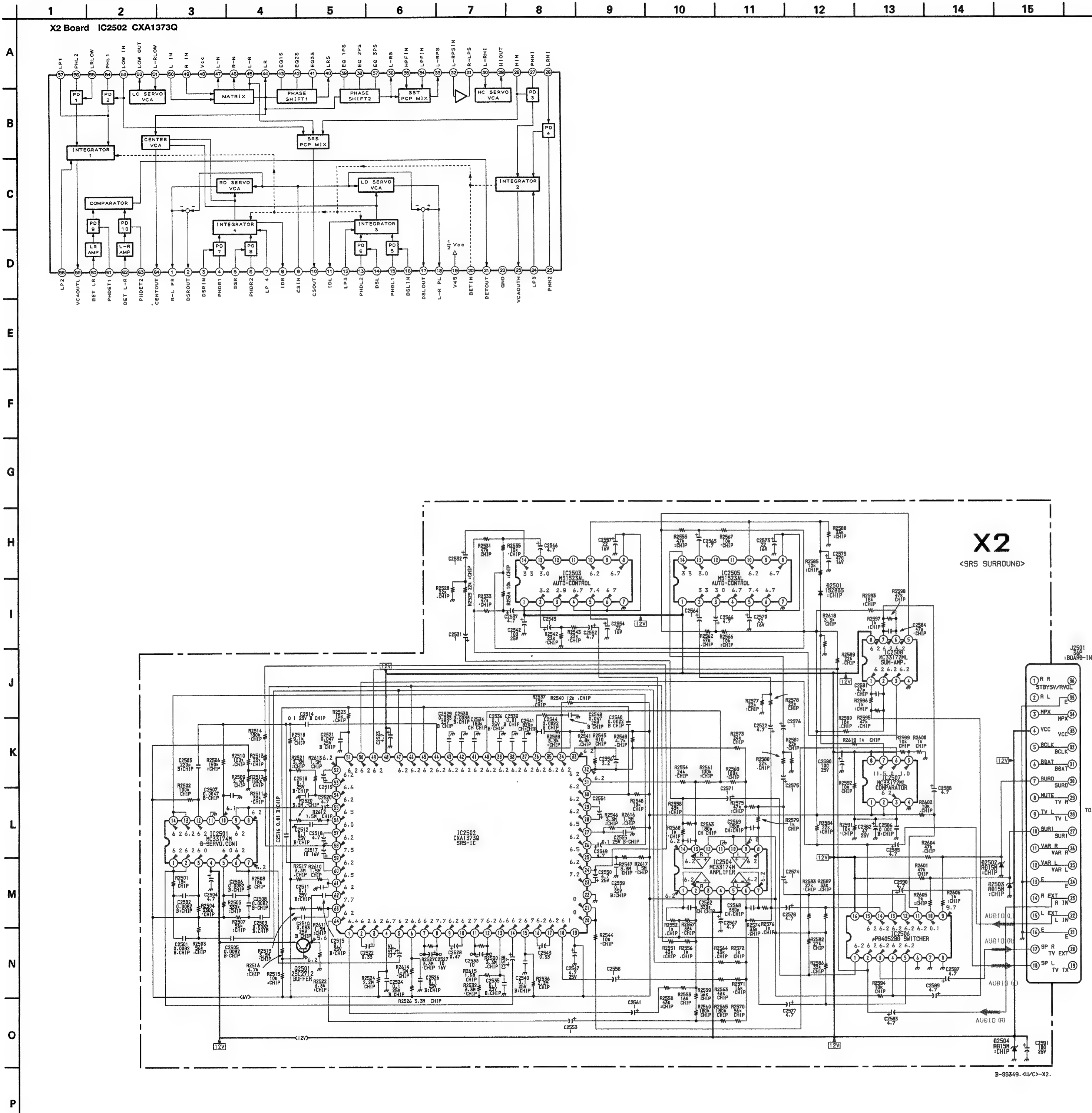
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

• M BOARD WAVEFORMS

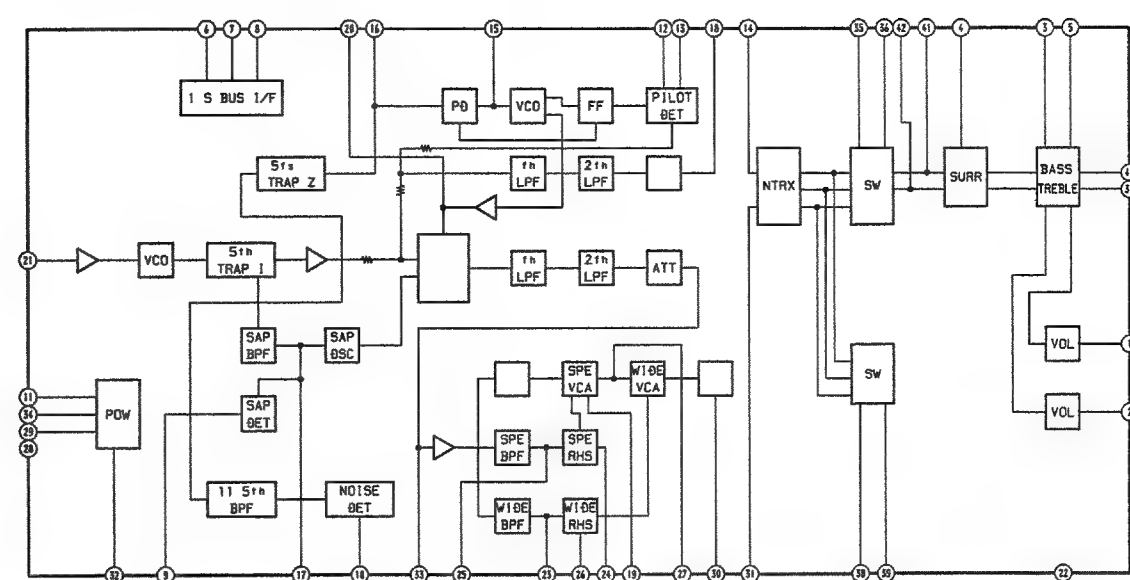


• N BOARD WAVEFORMS

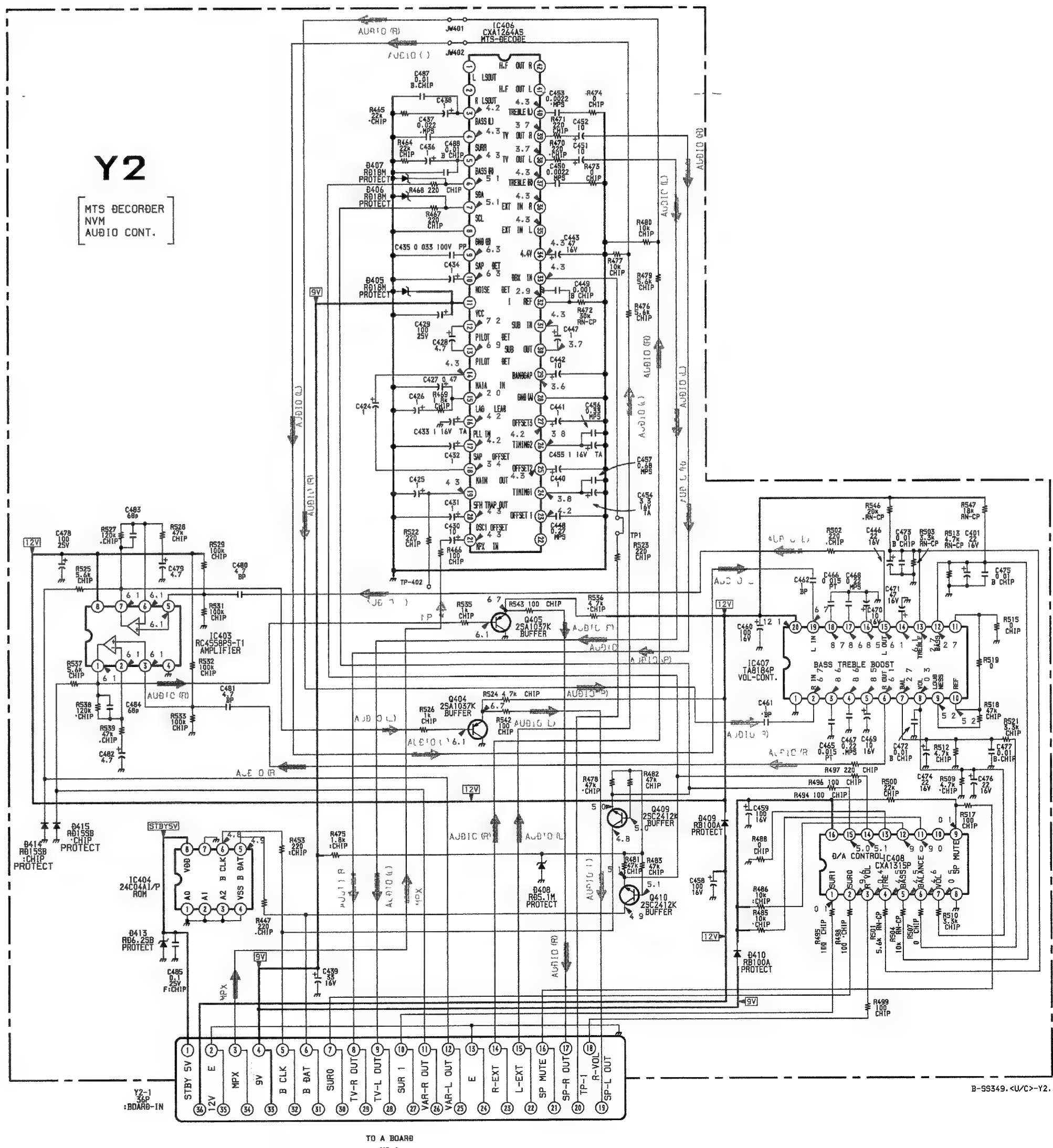
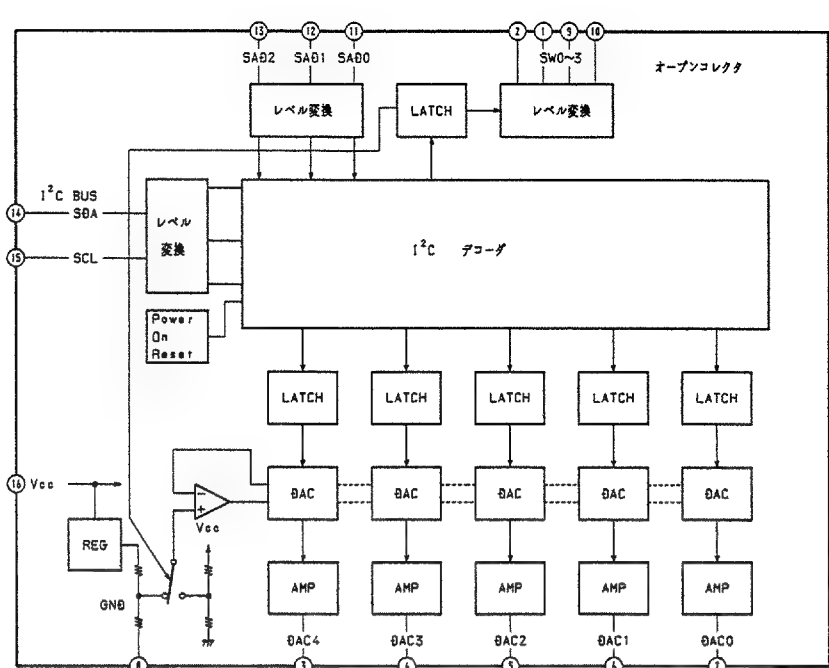




Y2 Board IC406 CXA1264AS



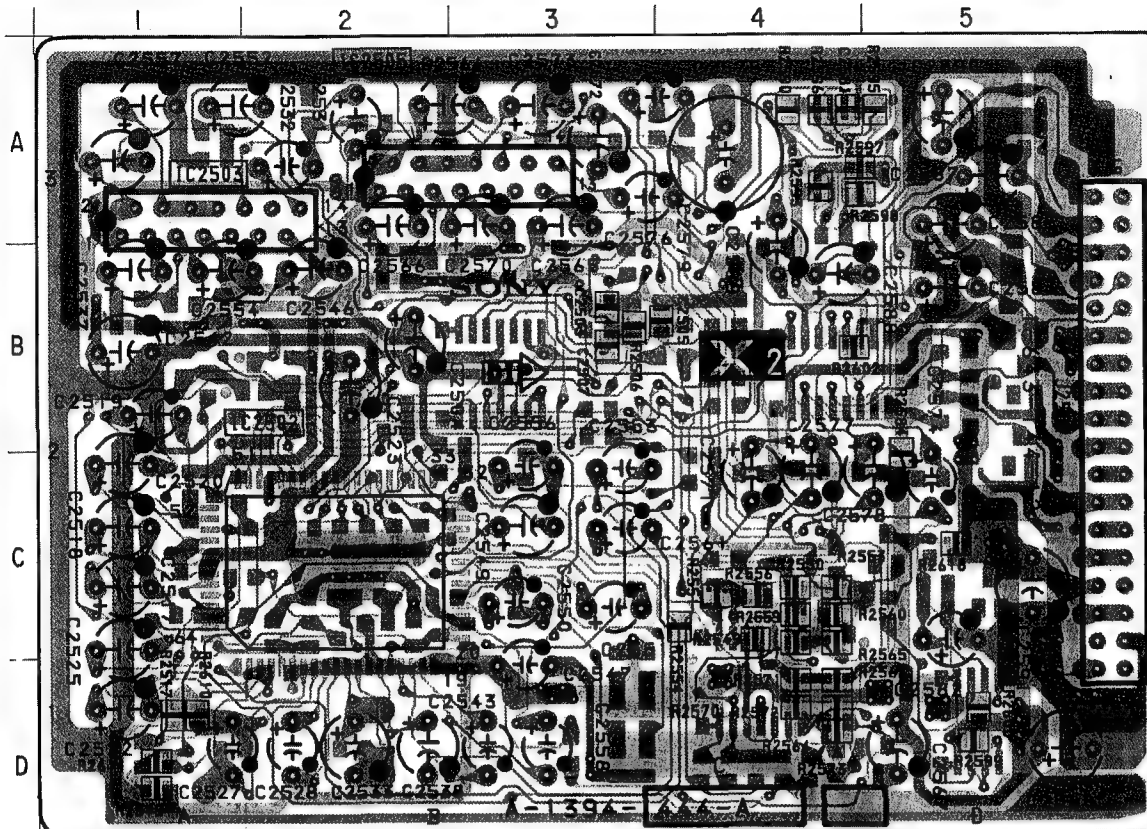
Y2 Board IC408 CXA1315P



X2

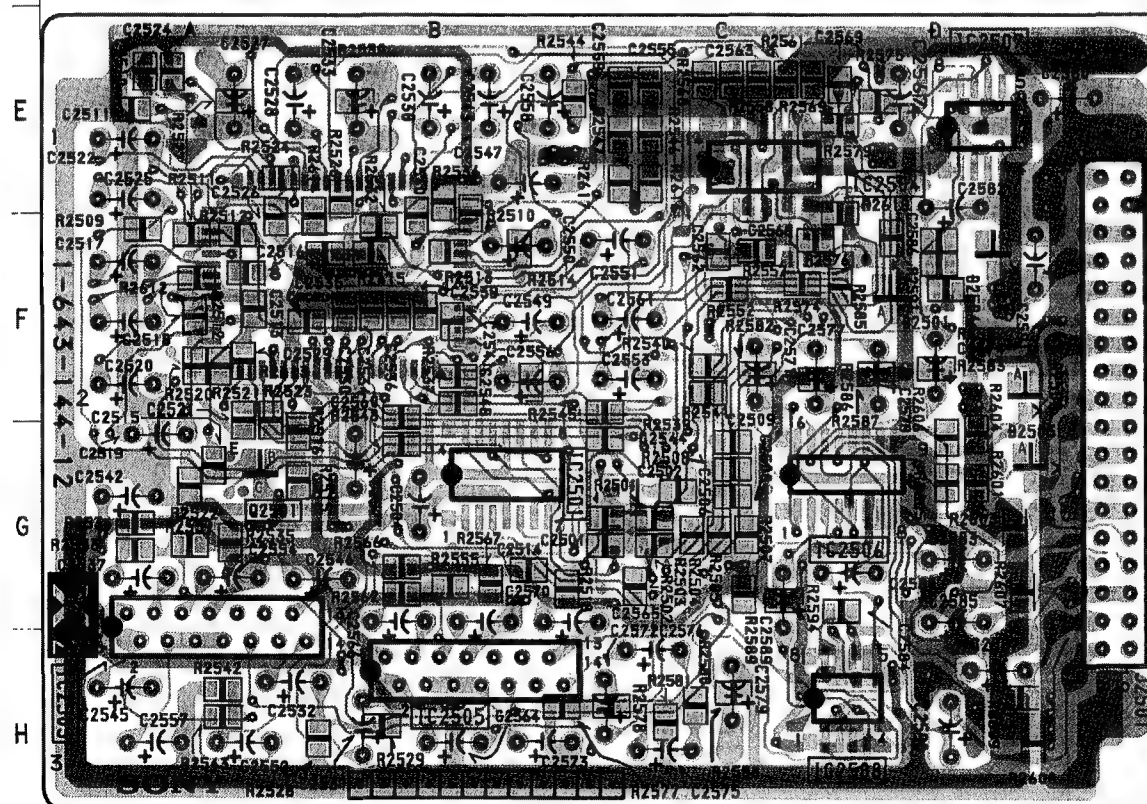
[SRS SURROUND]

- X2 Board -



X2 Board

IC		
IC2501		G-3
IC2502	C-2	
IC2503	A-1	H-1
IC2504		E-4
IC2505	A-2	H-2
IC2506		G-4
IC2507		E-5
IC2508		H-4
TRANSISTOR		
Q2501	G-2	
DIODE		
D2501		F-5
D2502		F-5
D2503		G-5
D2504		F-5

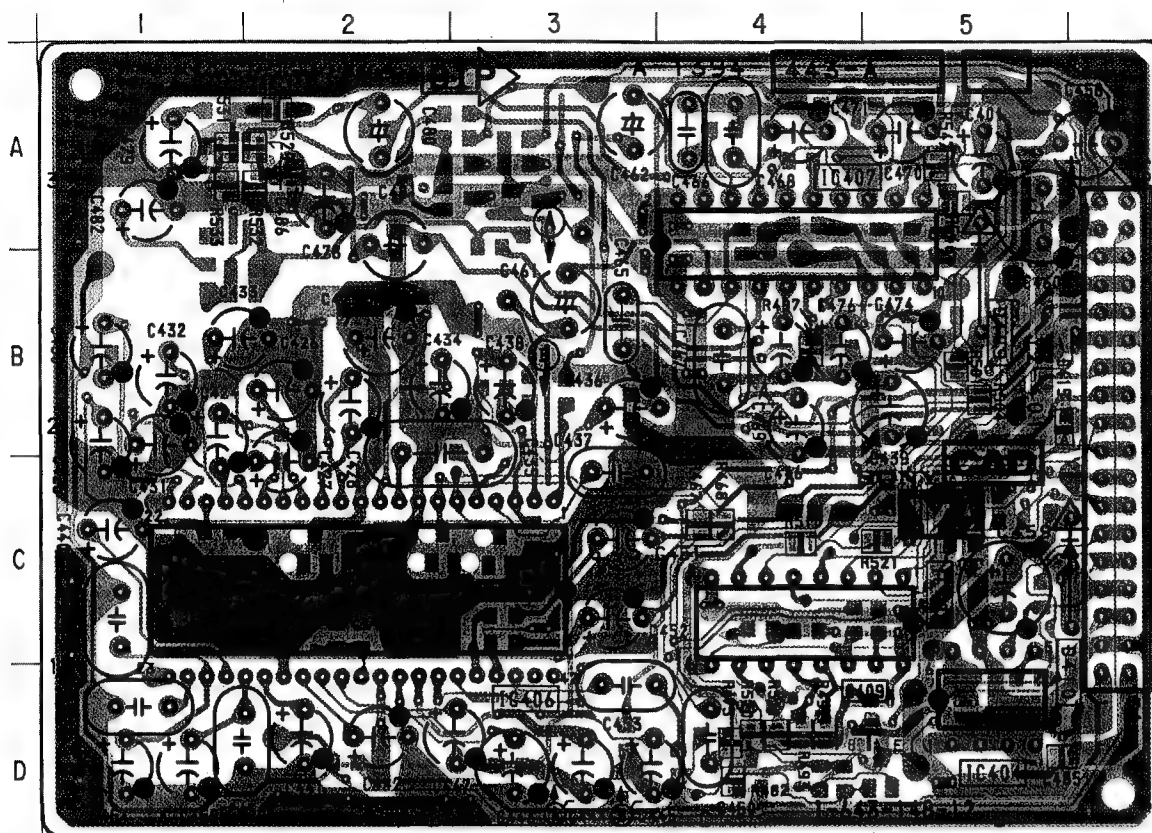


- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

Y2

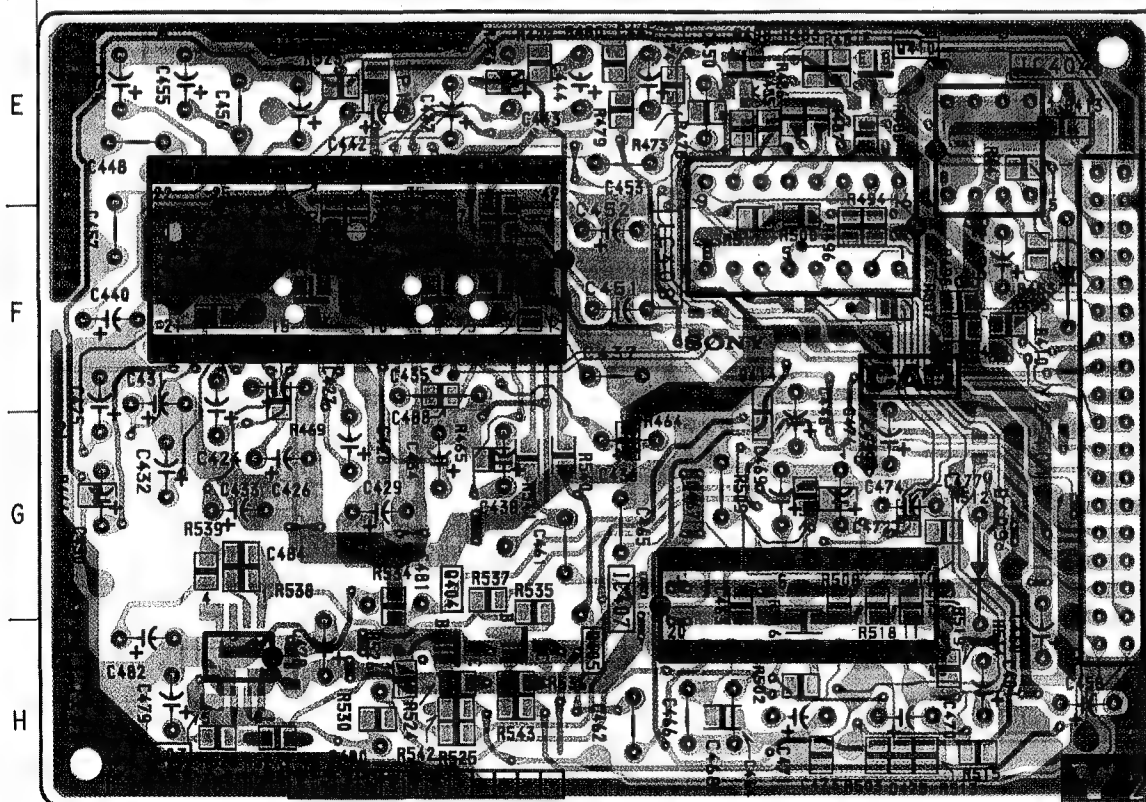
MTS DECORDER,
 NVM,
 AUDIO CONT.

— Y2 Board —

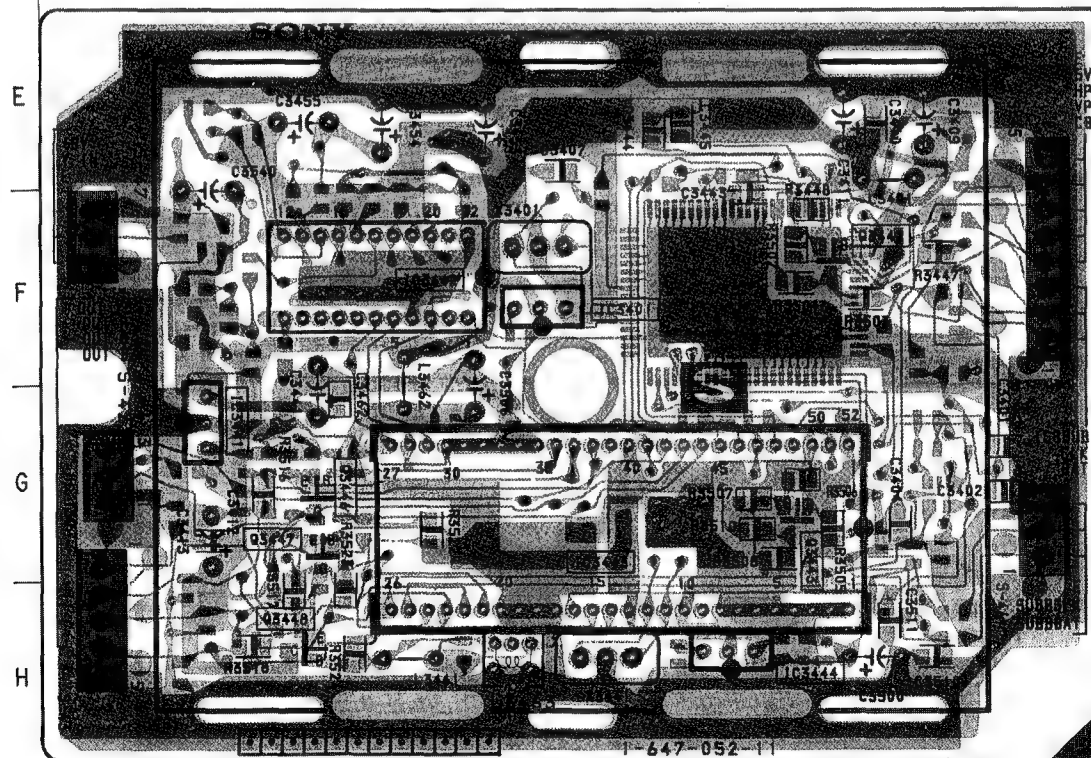


Y2 Board

IC	
IC403	H-1
IC404	D-5, E-5
IC406	C-2, F-2
IC407	A-4, G-4
IC408	C-4, F-4
TRANSISTOR	
Q404	H-3
Q405	H-3
Q409	D-5
Q410	E-5
DIODE	
D405	F-2
D406	F-2
D407	F-3
D408	E-4
D409	A-5
D410	C-5, F-5
D413	E-6
D414	F-4
D415	B-5

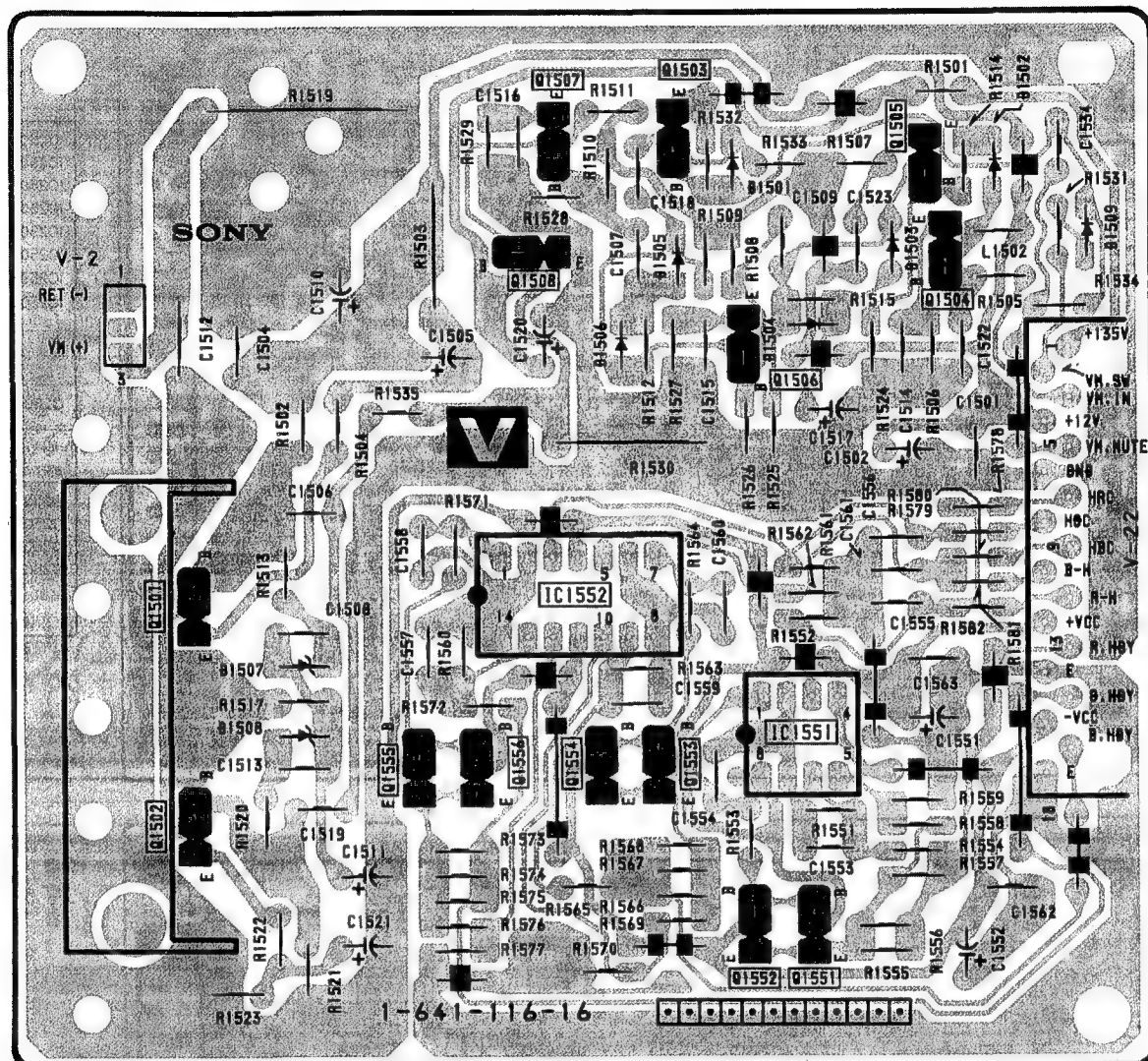


- : Pattern from the side which enables seeing.
- : Pattern of the rear side.





— V Board —

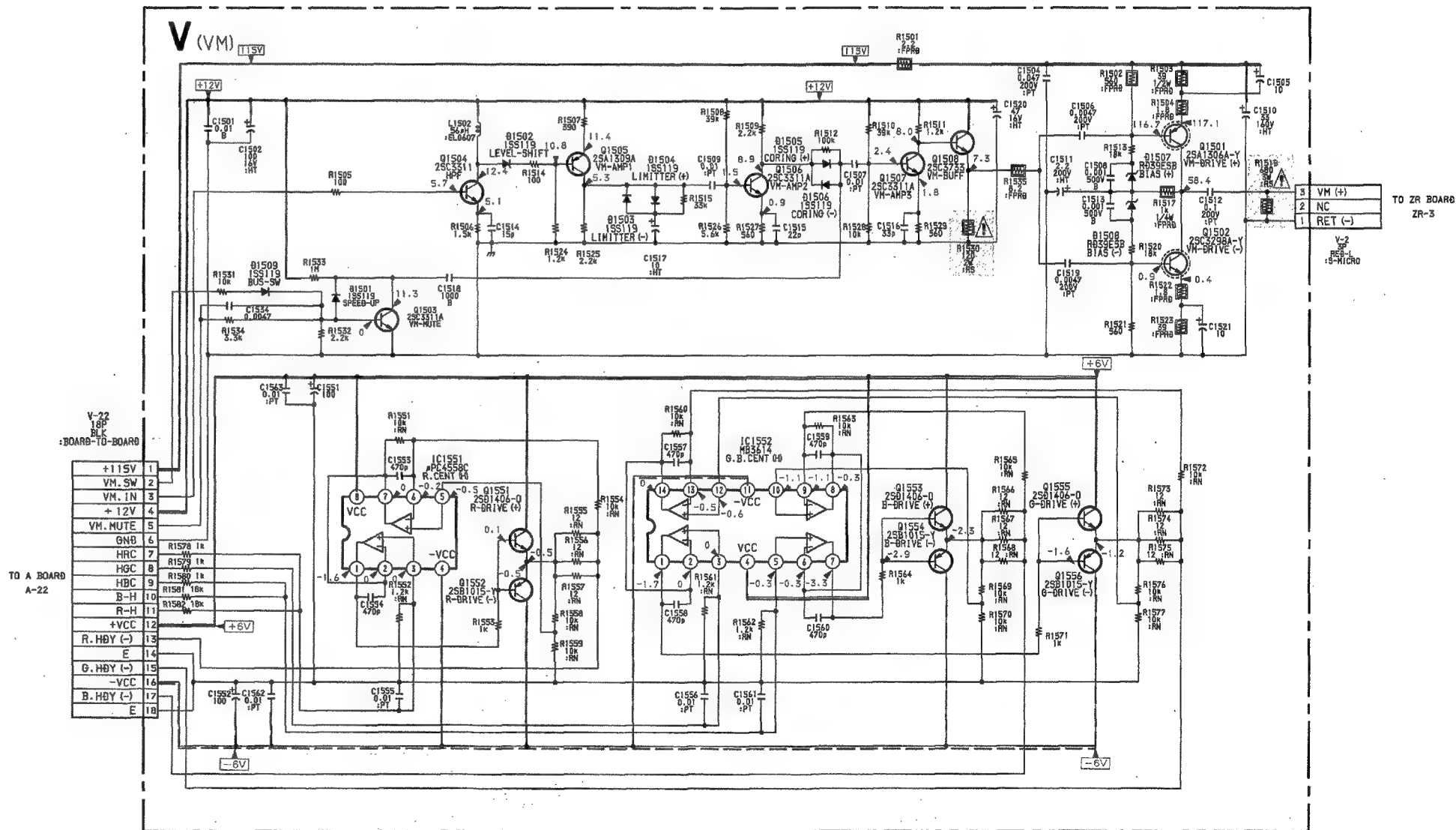
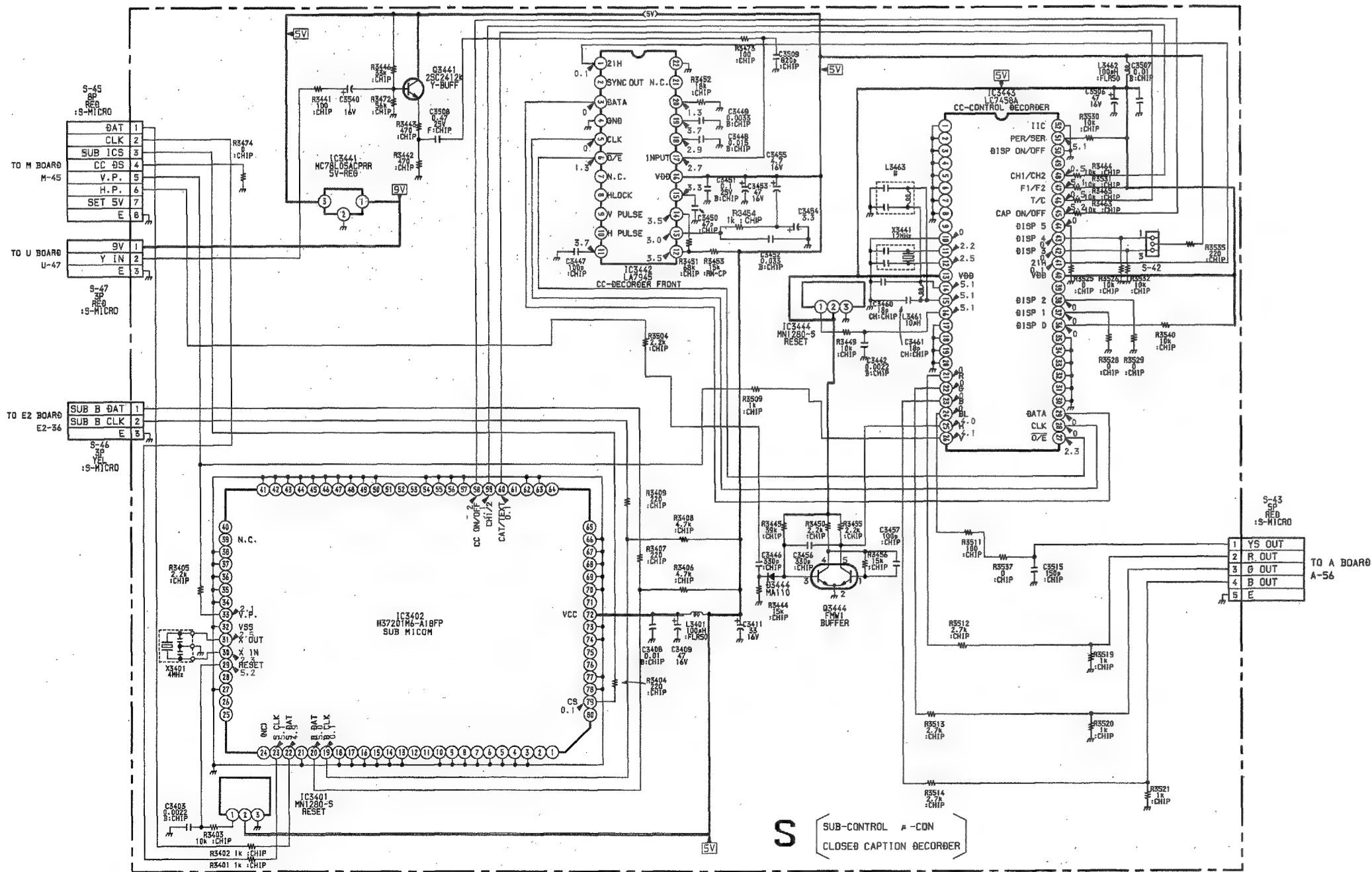
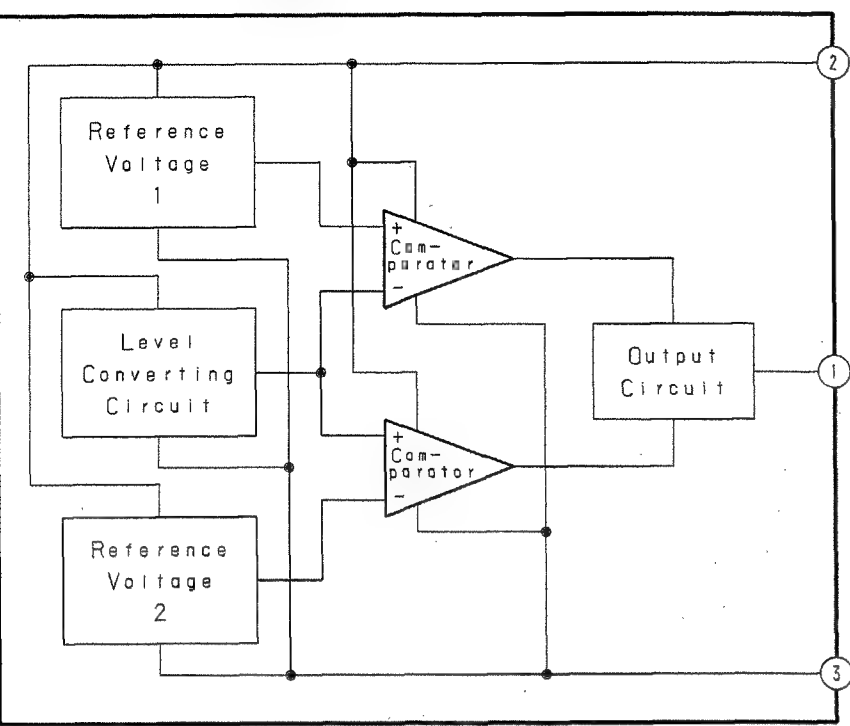


S Board

IC	TRANSISTOR
IC3401 C-3, F-1	Q3441 C-1
IC3402 C-3	Q3444 B-5
IC3441 B-1, G-1	DIODE
IC3442 C-2, F2	
IC3443 B-3, G-3	
IC3444 A-4, H-4	
	D3444 B-5

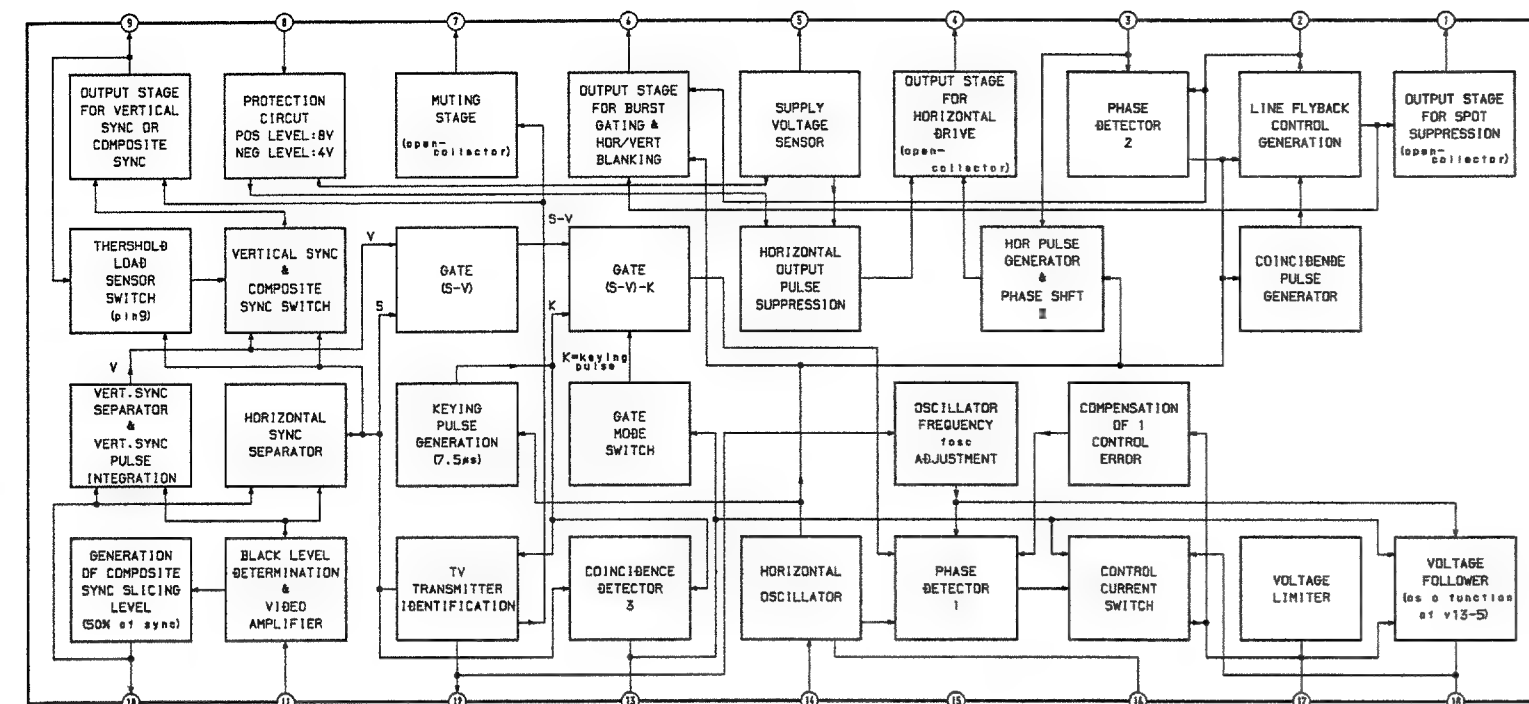
- : Pattern from the side which enables seeing.
- : Pattern of the rear side

S Board IC3401 MN1280-S

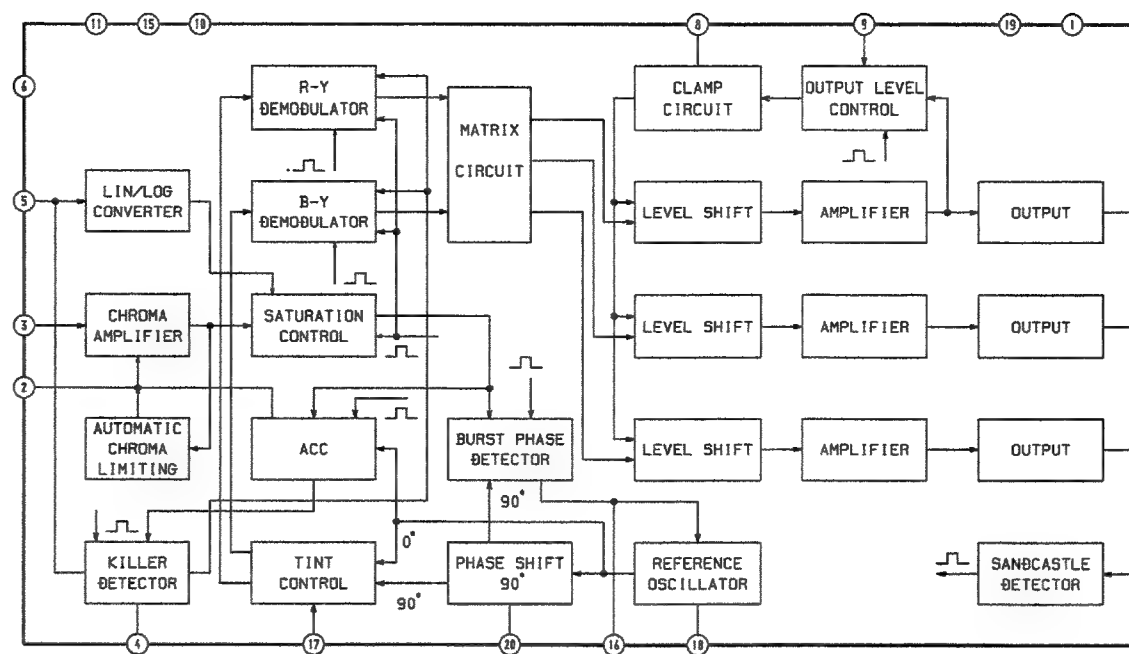


(9) SCHEMATIC DIAGRAM OF P1 BOARD

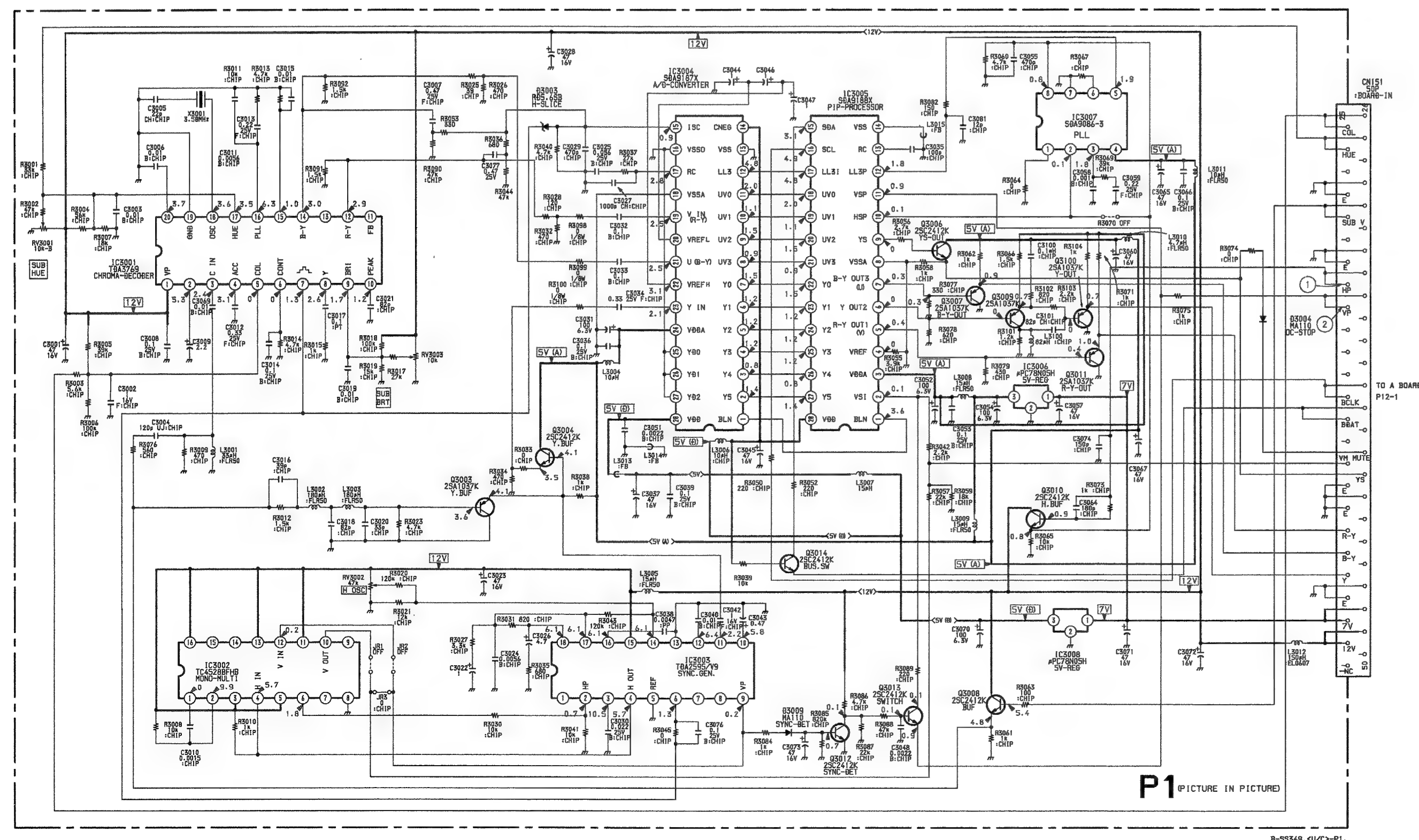
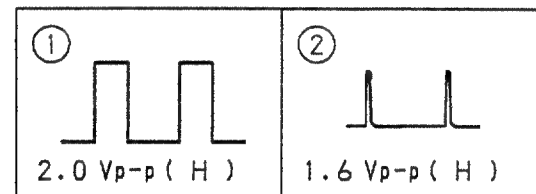
P1 BOARD IC3003 TDA2595



P1 BOARD IC3001 TDA3769

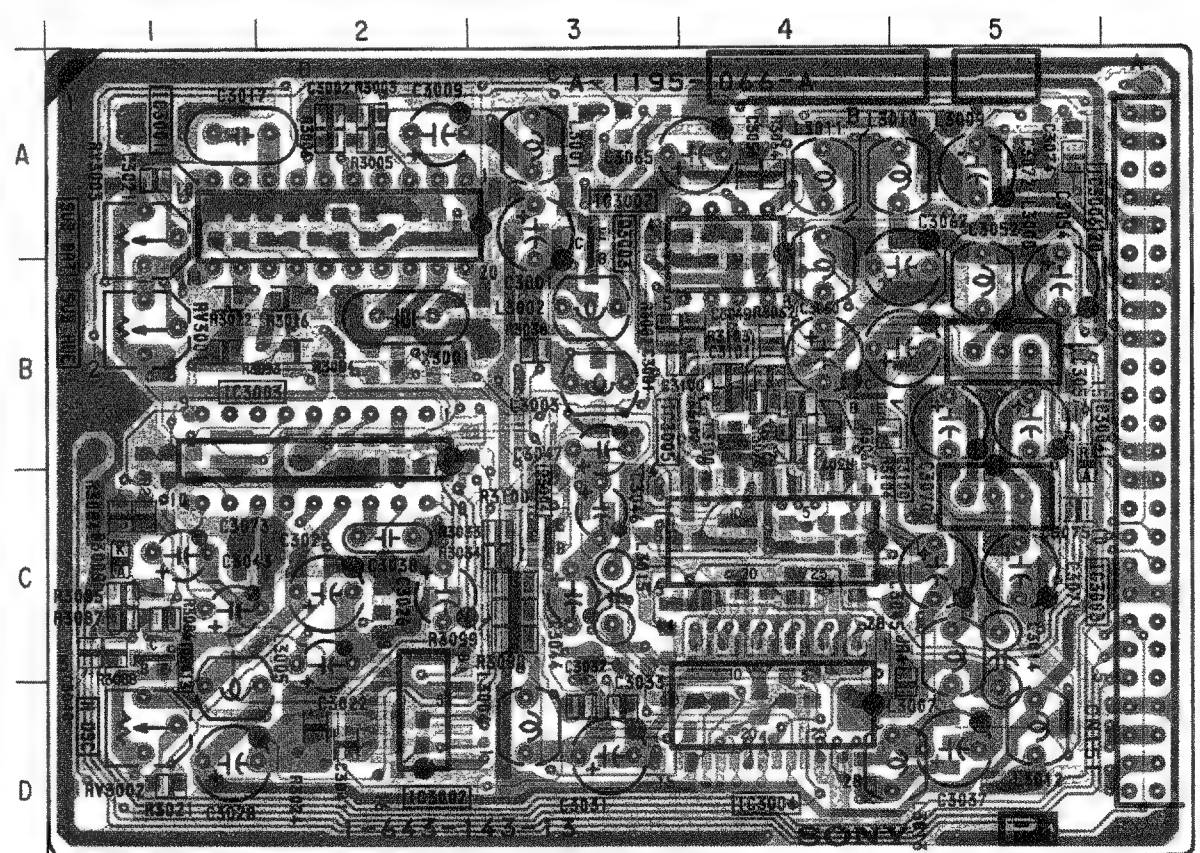


- **P1 BOARD WAVEFORMS**



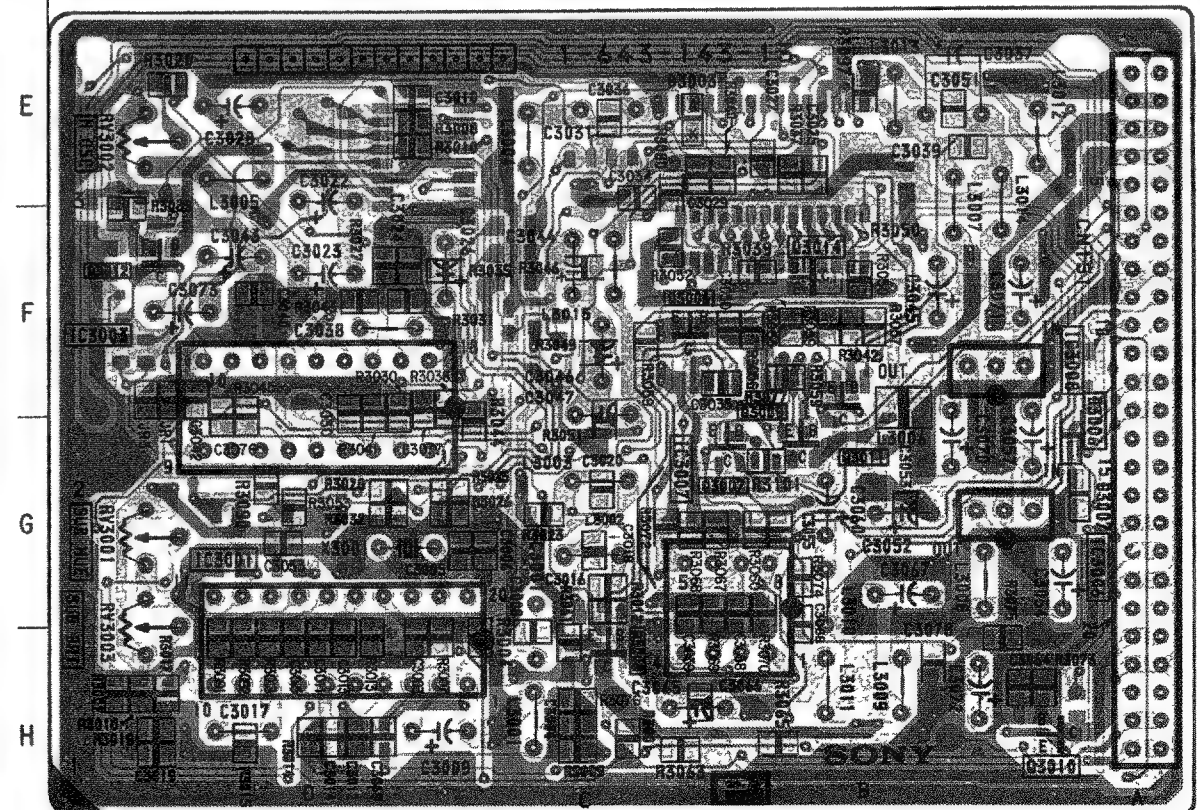
P₁ [PICTURE IN PICTURE]

– P1 Board –



1 Board

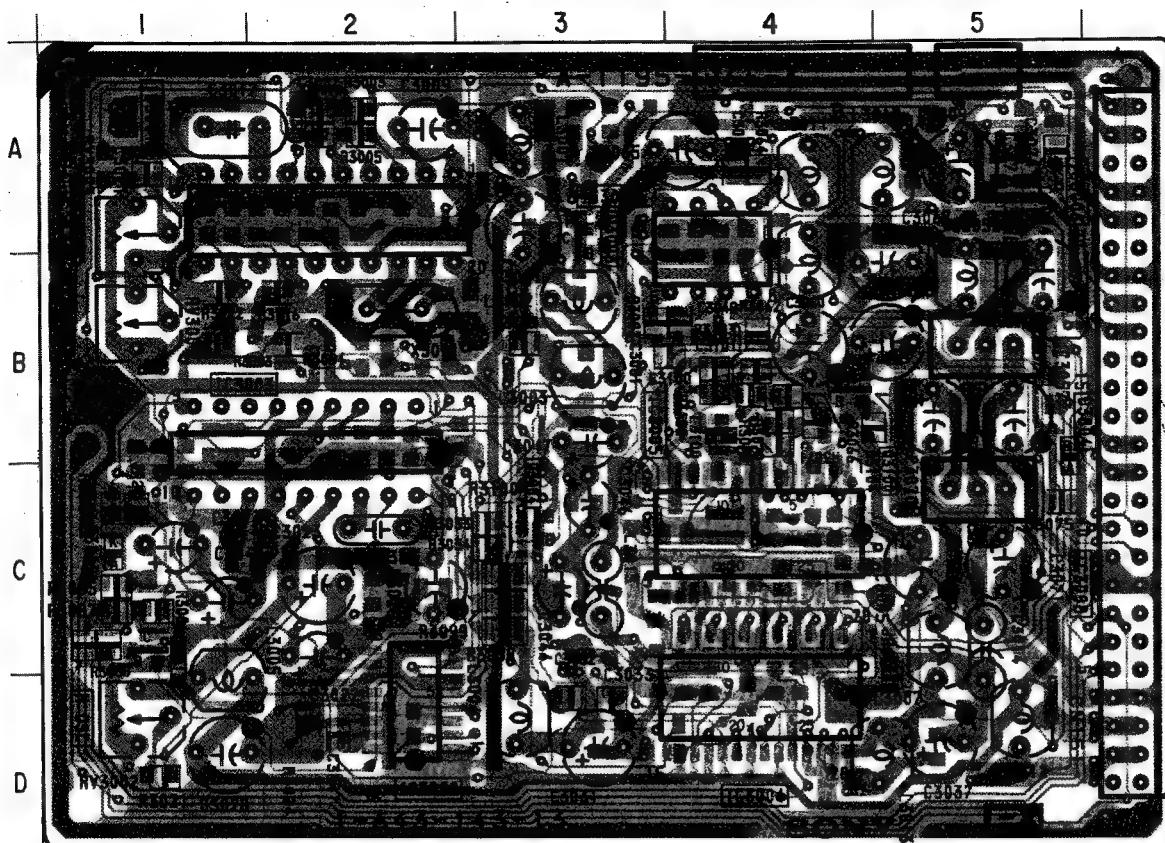
IC	
0001	A-2, G-2
0002	D-2
0003	B-2, F-2
0004	D-4
0005	C-4
0006	B-5, G-5
0007	A-4, G-4
0008	C-5, F-5
TRANSISTOR	
0003	A-3
0004	C-3
0006	F-4
0007	G-4
0008	H-3
0009	G-4
0010	H-5
0011	F-4
0012	F-1
0013	C-1
0014	F-4
1000	B-4
DIODE	
0003	E-4
0004	B-5
0009	C-1
VARIABLE RESISTOR	
30001	B-1, G-1
30002	D-1, E-1
30003	A-1, G-1



P1

[PICTURE IN PICTURE]

— P1 Board —



P1 Board

IC	
IC3001	A-2, G-2
IC3002	D-2
IC3003	B-2, F-2
IC3004	D-4
IC3005	C-4
IC3006	B-5, G-5
IC3007	A-4, G-4
IC3008	C-5, F-5

TRANSISTOR

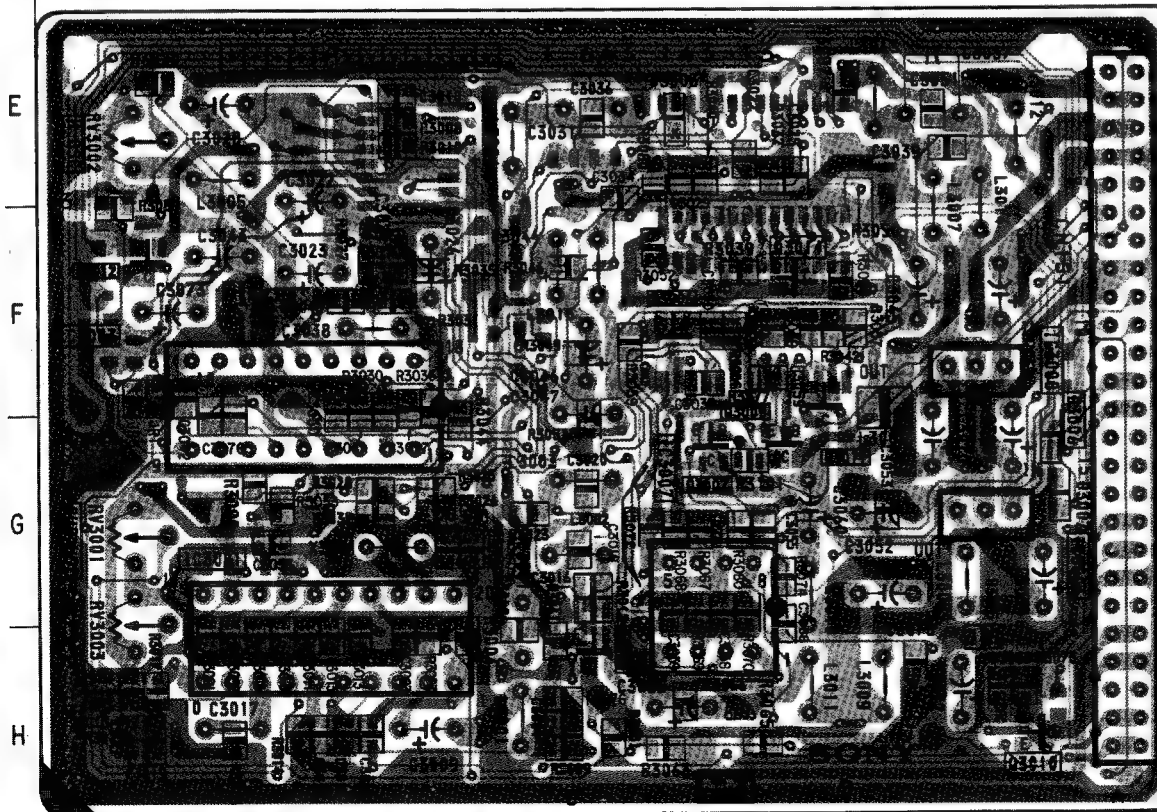
Q3003	A-3
Q3004	C-3
Q3006	F-4
Q3007	G-4
Q3008	H-3
Q3009	G-4
Q3010	H-5
Q3011	F-4
Q3012	F-1
Q3013	C-1
Q3014	F-4
Q3100	B-4

DIODE

D3003	E-4
D3004	B-5
D3009	C-1

VARIABLE RESISTOR

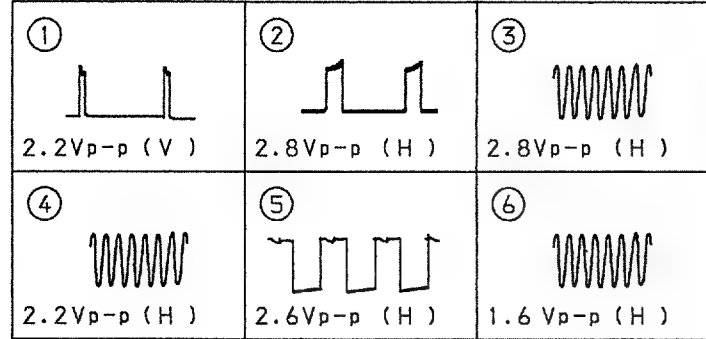
RV3001	B-1, G-1
RV3002	D-1, E-1
RV3003	A-1, G-1



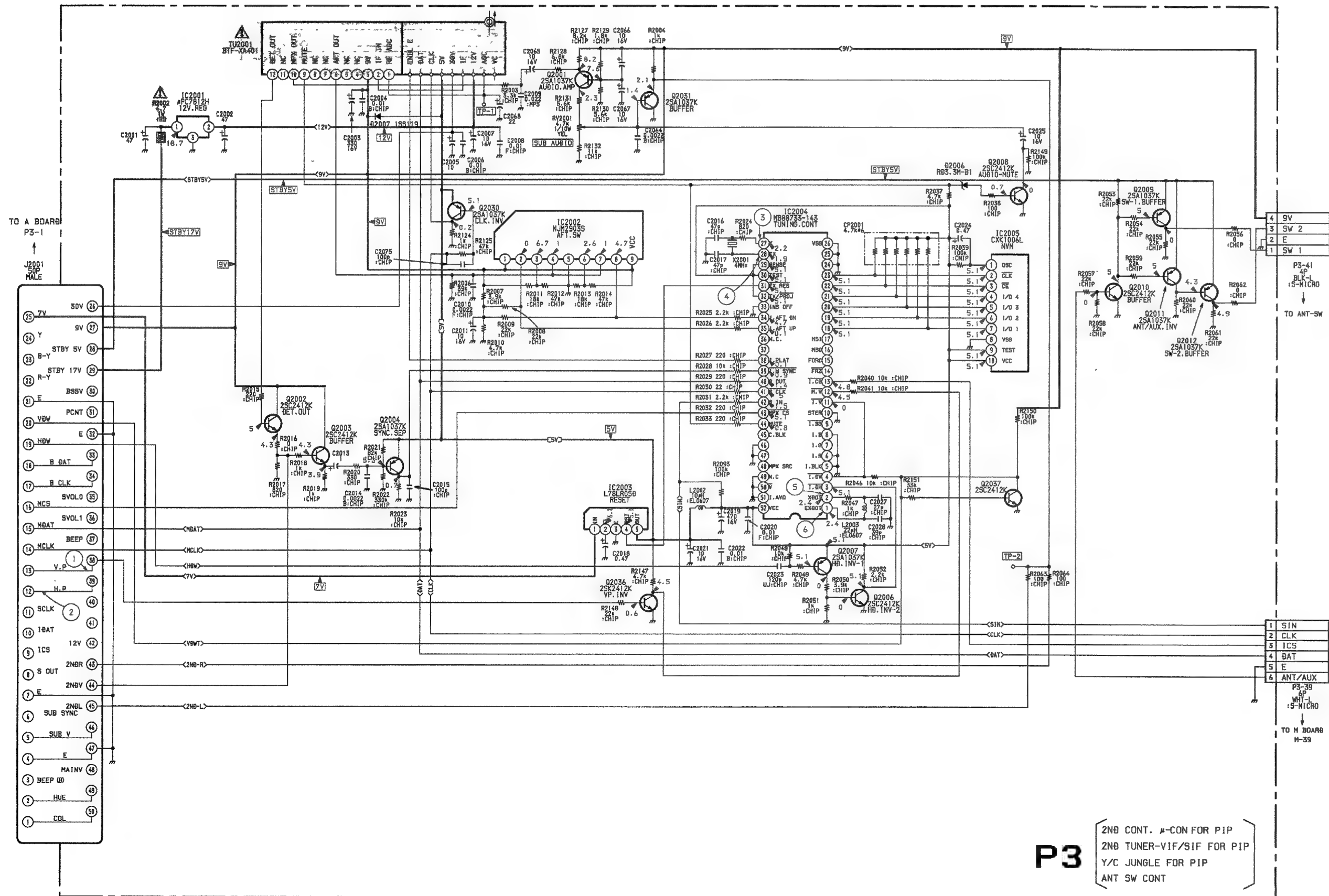
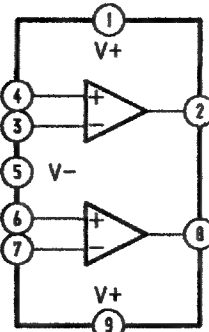
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

• P3 BOARD WAVEFORMS

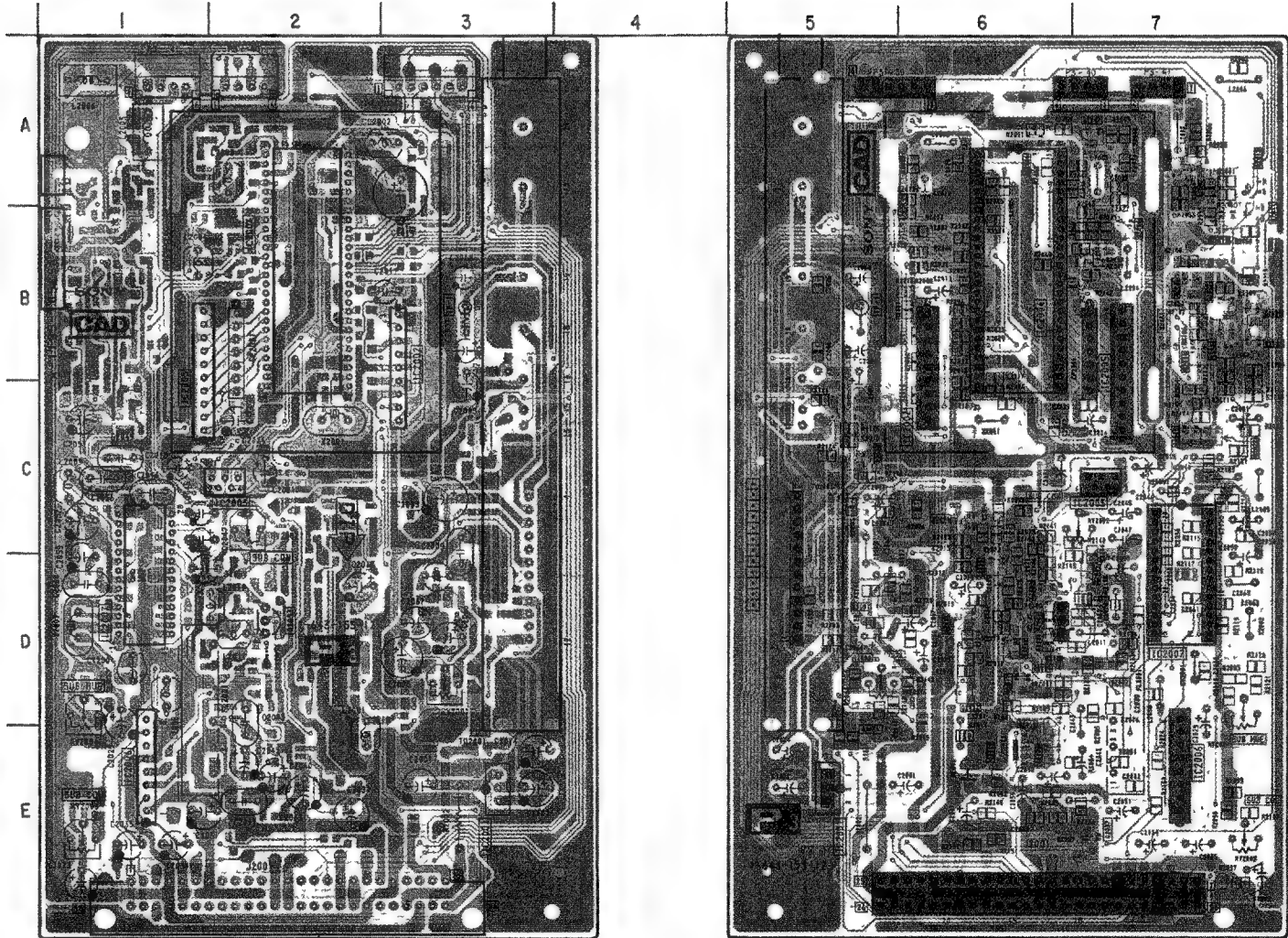


P3 Board IC2002 NJM2903S



P3 2ND CONT. μ -CON FOR PIP,
2ND TUNER-VIF/SIF FOR PIP,
Y/C JUNGLE FOR PIP,
ANT SW CONT

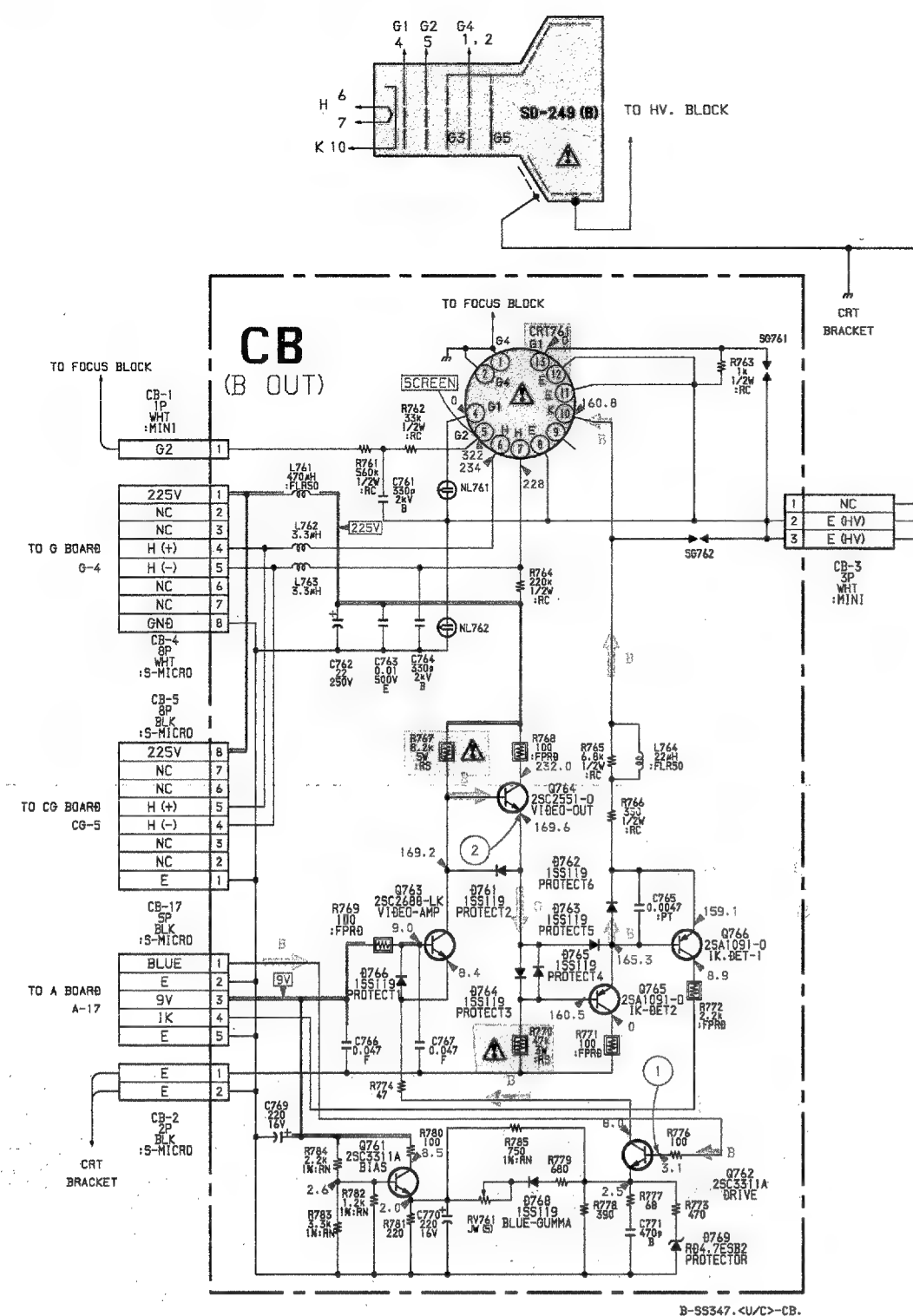
— P3 Board —



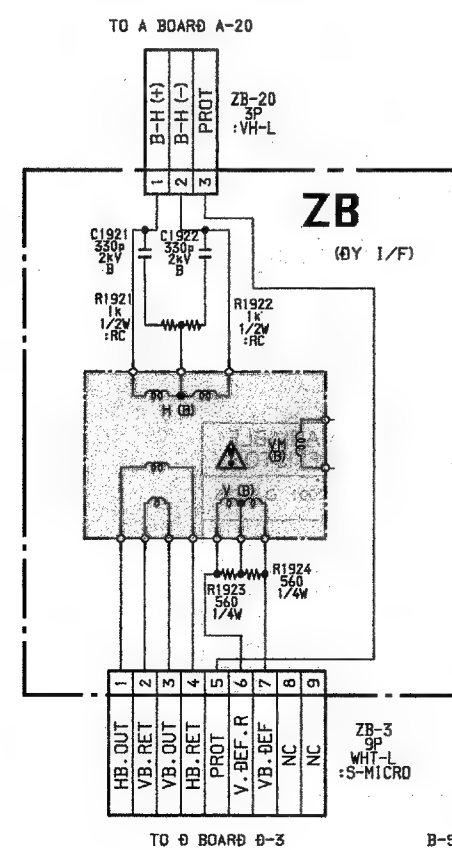
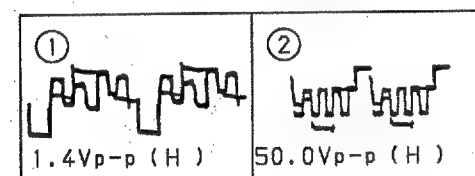
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

P3 Board

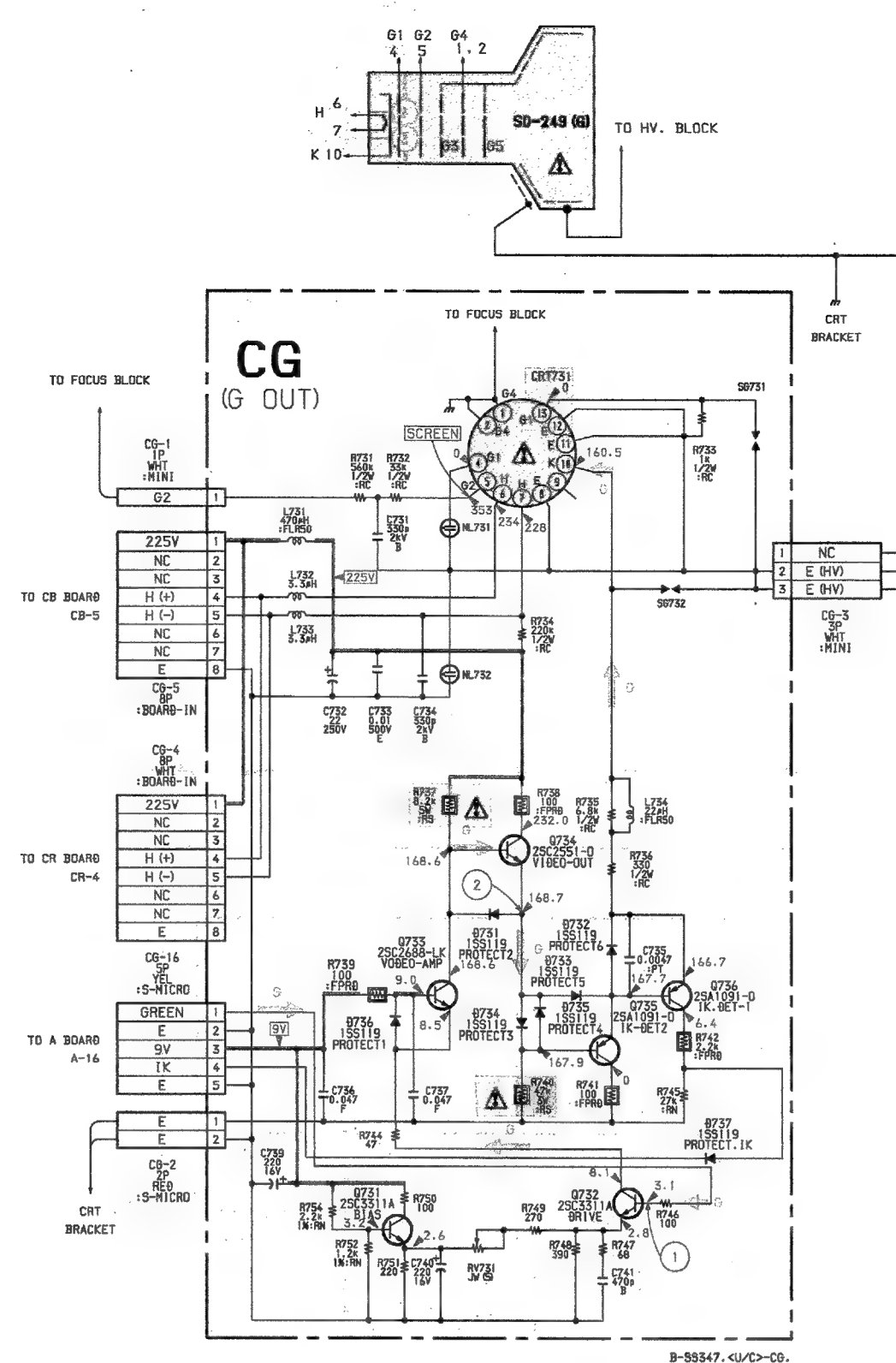
IC	Q2006 A-6 Q2007 A-7 Q2008 D-5 Q2009 A-7 Q2010 B-7 Q2011 A-7 Q2012 A-7 Q2030 C-5 Q2031 D-5 Q2036 B-7 Q2037 E-7	VARIABLE RESISTOR RV2001 D-3, D-5 TUNER TU2001 D-3, D-5 CRYSTAL X2001 C-2, C-6
TRANSISTOR	Q2001 D-5 Q2002 D-6 Q2003 D-6 Q2004 C-6 Q2005 B-7	DIODE D2006 C-6



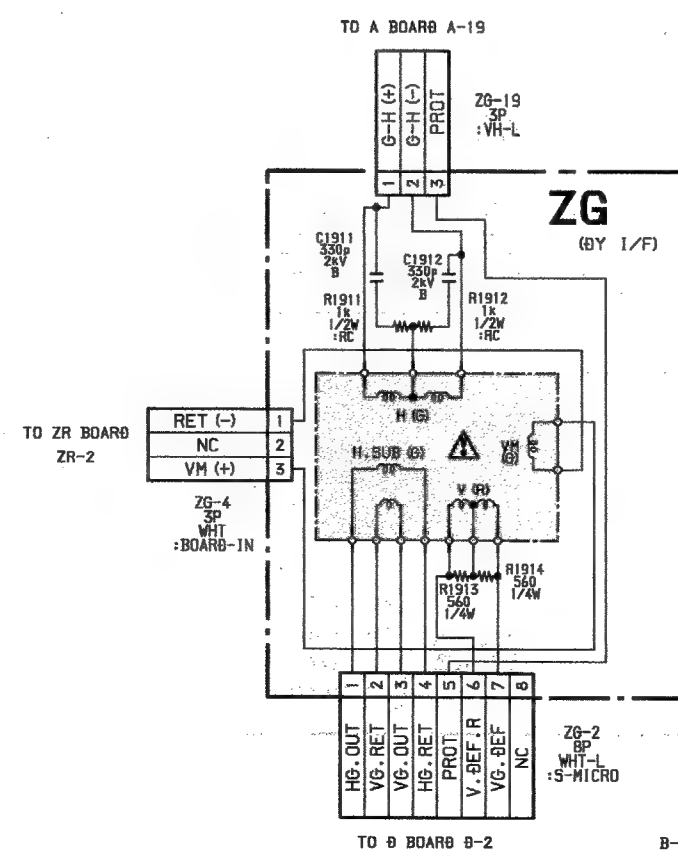
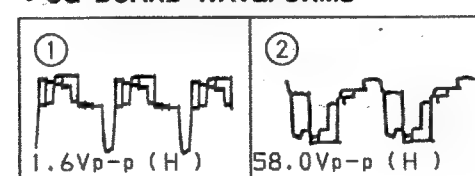
• CB BOARD WAVEFORMS



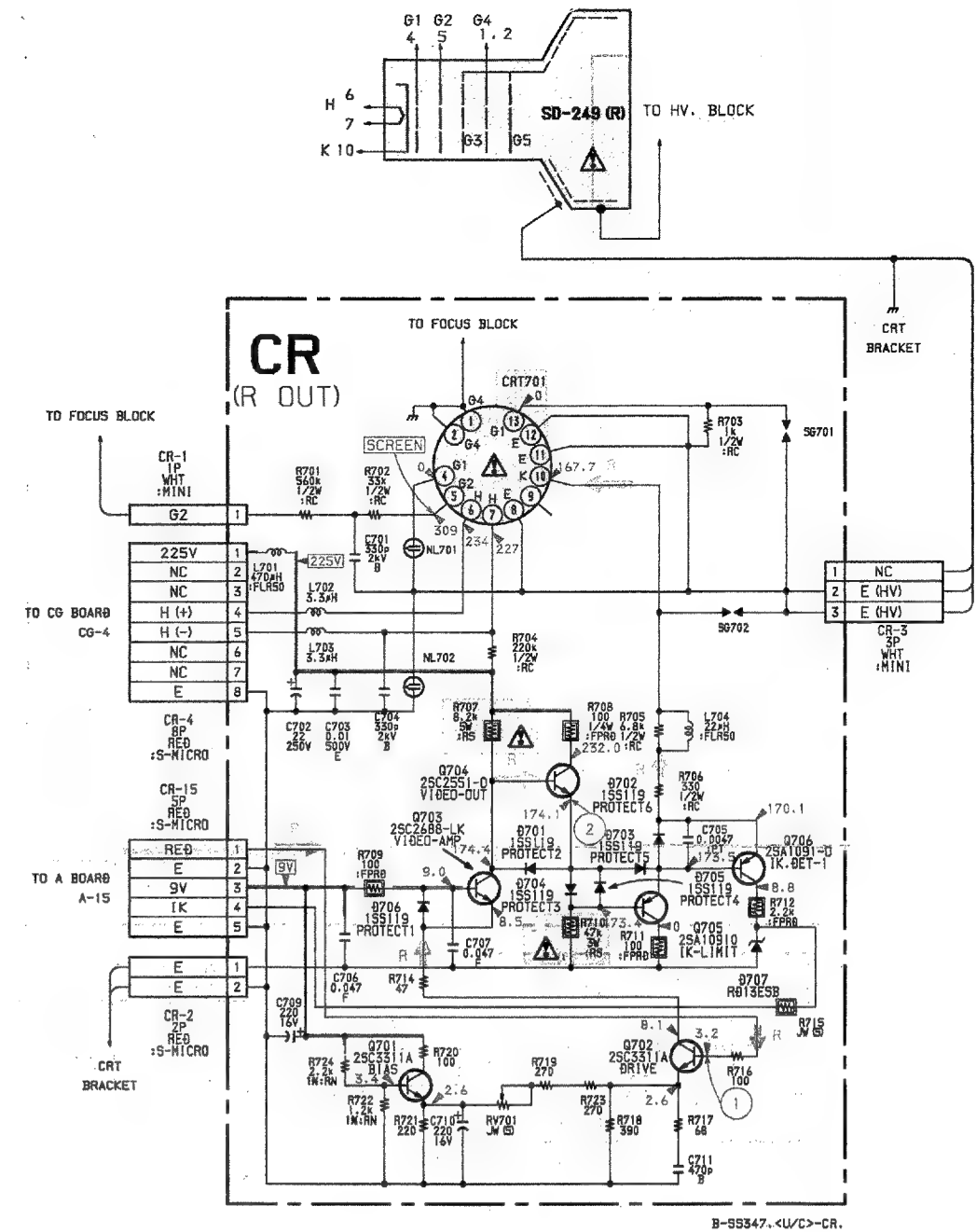
B-55347, <U/C>-ZB.



• CG BOARD WAVEFORMS



B-55347, <U/C>-ZG.



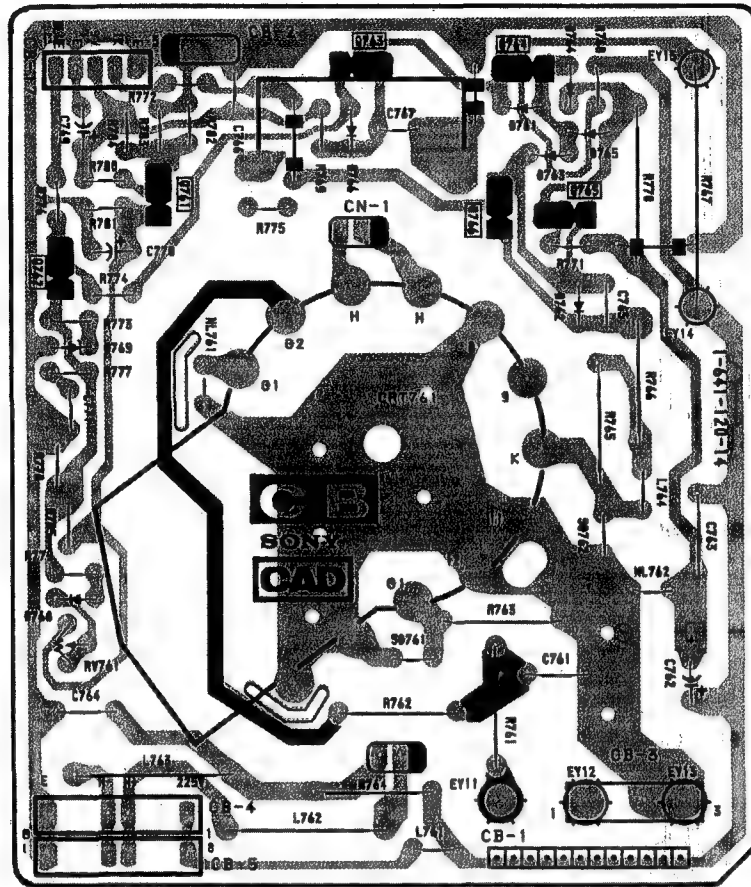
CB

[B OUT]

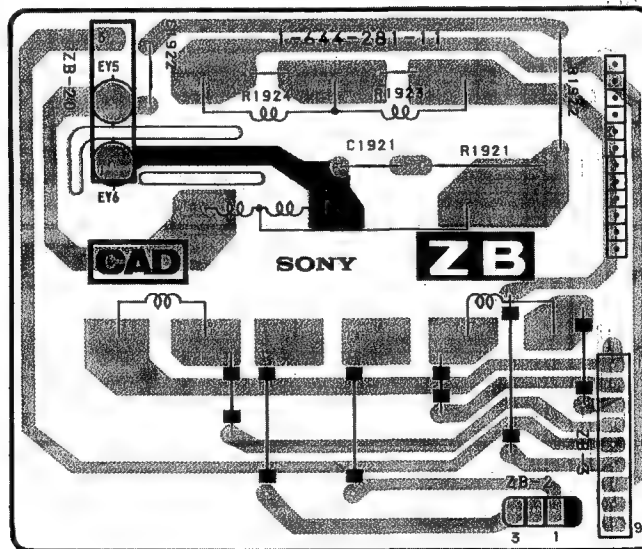
ZB

[DY I/F]

— CB Board —



— ZB Board —



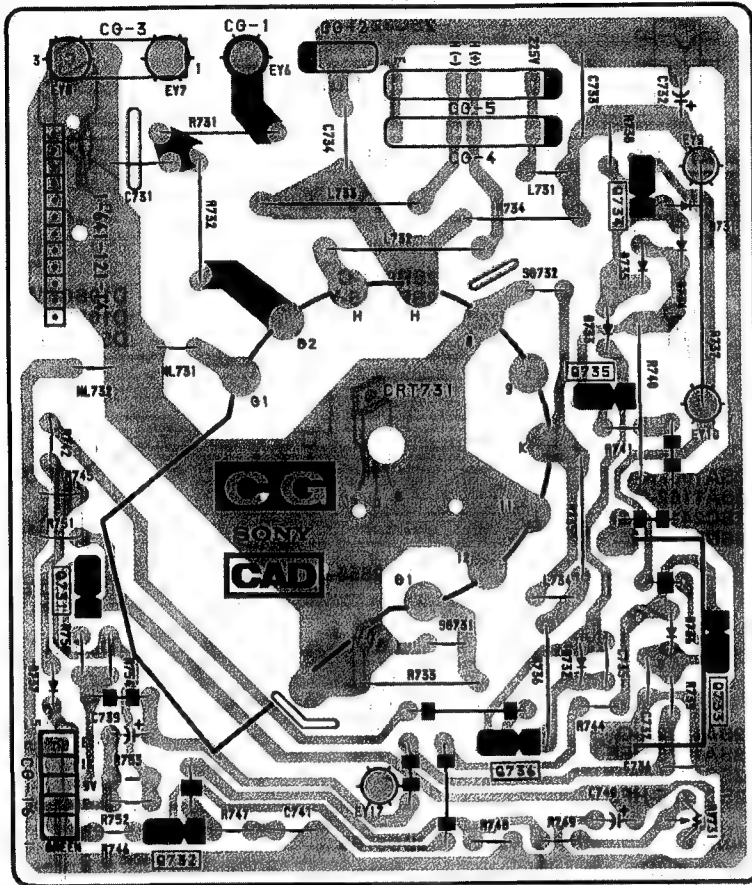
CG

[G OUT]

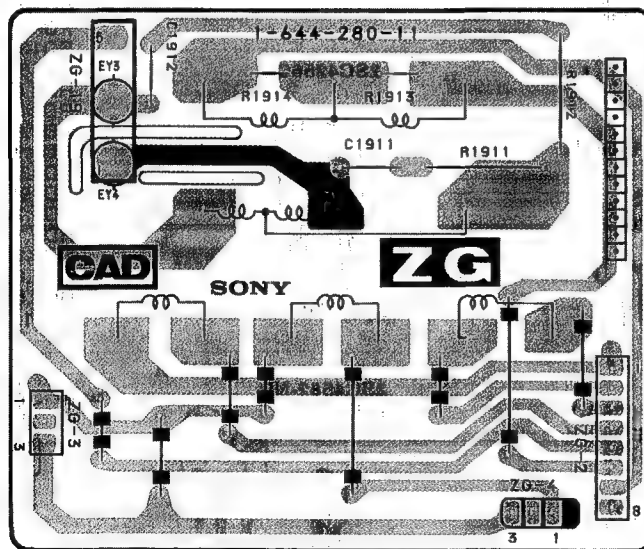
ZG

[DY I/F]

— CG Board —

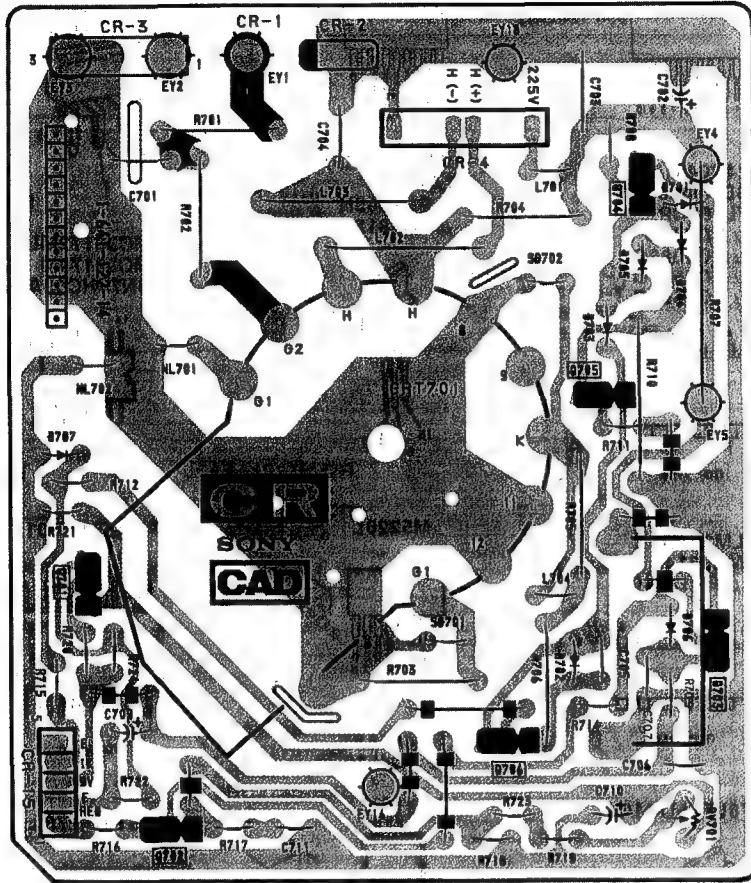


— ZG Board —

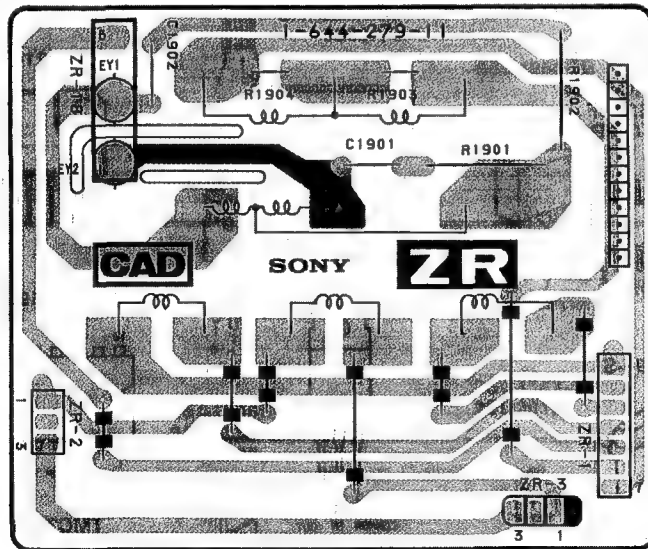


CR [R OUT] **ZR** [DY I/F]

— CR Board —

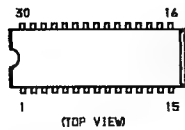


— ZR Board —

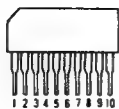


6-7. SEMICONDUCTORS

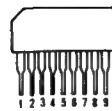
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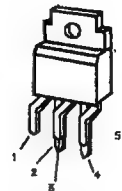
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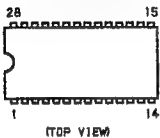
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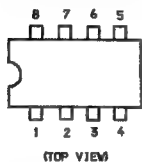
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SDA9187X
SDA9188X



24C04AI/P
SDA9086-3
TL082CP
μ PC393C
μ PC4082C
μ PC4557C
μ PC4558C



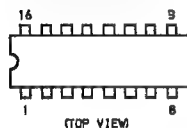
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TA7812S
μ PC7805H
μ PC7812H



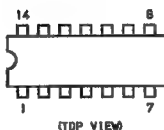
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SN74HC05ANS



CXA1315M
CXA1315P
μ PD4053BC



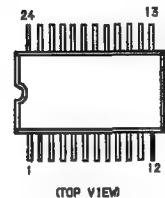
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MB3614
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M5220L



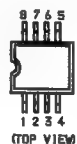
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CXA1464AS



RC4558PS
μ PC4570G2



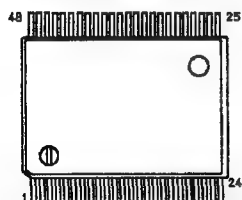
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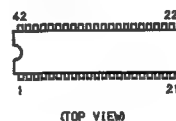
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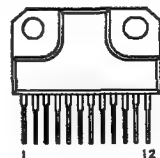
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CXA1545S



CXA1264AS
PA0036



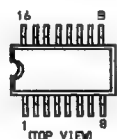
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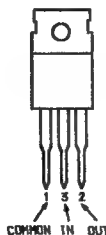
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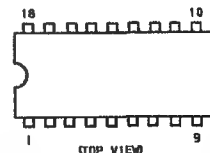
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MC14528BF
μ PD4052BG



NJM79M05FA
NJM7915FA



TDA2595-V9



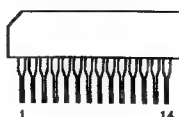
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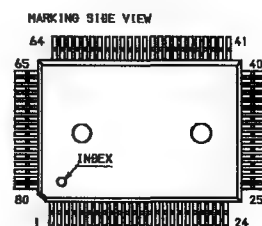
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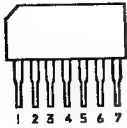
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TMC73C247-10



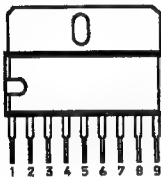
μ PC1037HA



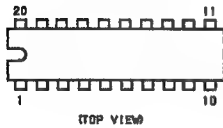
μ PC78N05H



μ PC1498H



TA8184P
TDA3769



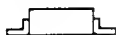
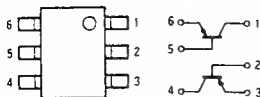
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DTC144ES
2SC3622A-LK



FMW1



XN4401



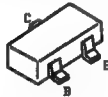
IMX3
IMZ1



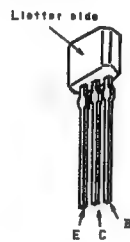
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2SD788-5
2SA1091-0
2SA1208-S
2SC2551-0



2SA1037K-QR
2SA1162-G
2SC2412K-QR
2SD601A-Q



2SA1309A-Q
2SA1175-HFE
2SC3311A-Q
2SC2785-HFE



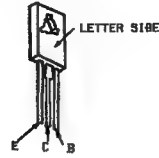
2SA1301-0



2SA1306A-Y
2SC3298A-Y
2SC4793



2SB649A-C
2SC2611
2SC2688-LK
2SC3271-N



2SB861-C
2SB1015-Y
2SC3675-CB
2SD1406-YGR



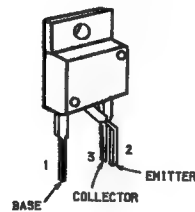
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2SC3733



2SC4256CB



2SC4582-NP
2SD2012



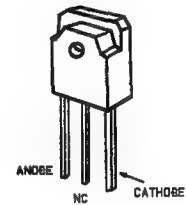
2SC4891-CA
2SD1887-CA



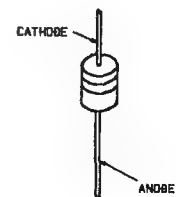
D10SC6M
D10SC6MR
D5KC40H



DD50R



D1N20R
EGP10D
PB-100A
RD13ES-B2
RD18ES-B2
RD2.0ES-B1
RD24ES-B3
RD3.3ES-B2
RD3.9ES-B1
RD33ES-B2
RD39ES-B2
RD4.7ES-B2
RD5.1ES-B1
RD5.1ES-B2
RD5.6ES-B2
RD7.5ES-B1
1SS119



SECTION 7 EXPLODED VIEWS

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

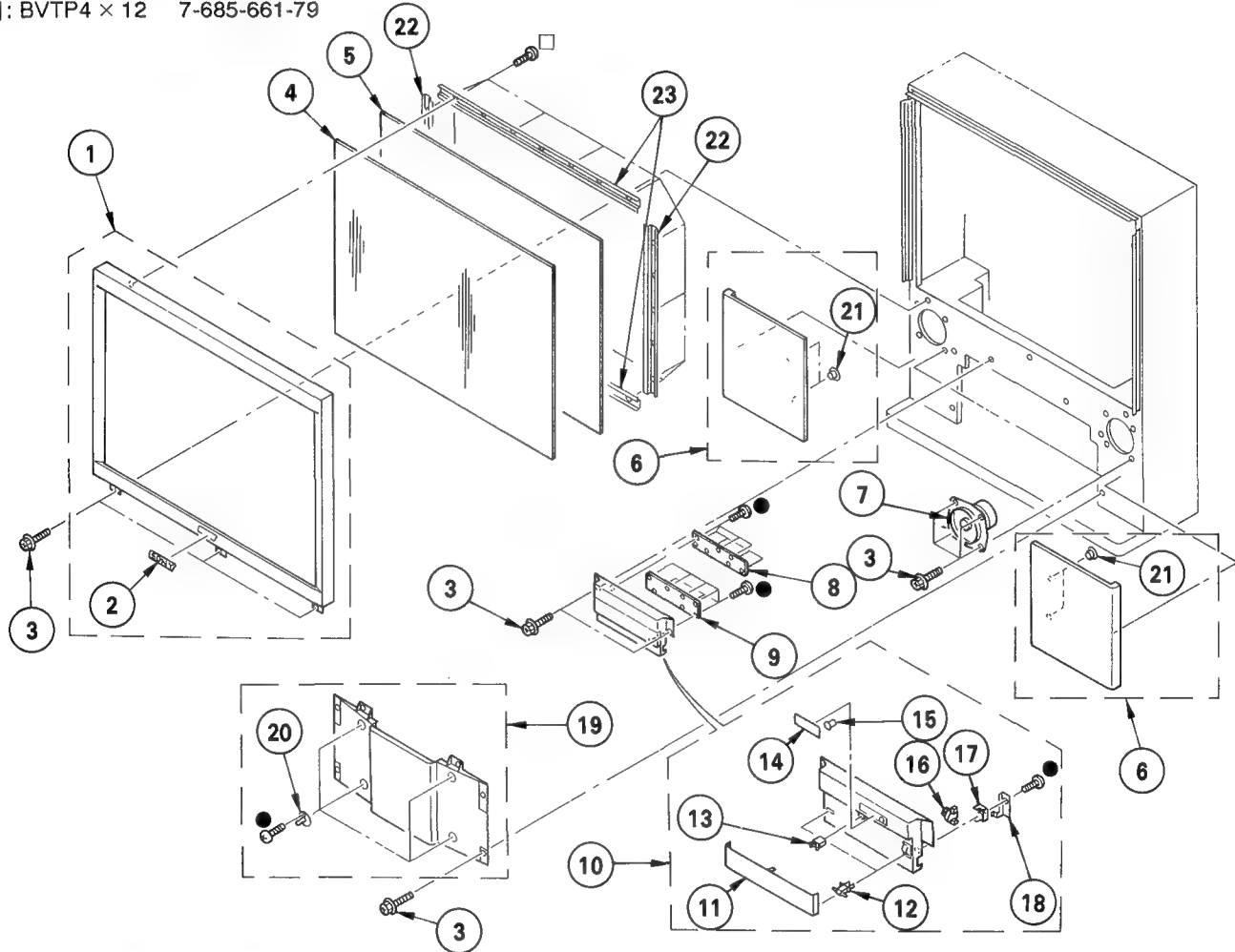
The components identified by shading and mark **▲** are critical for safety.
Replace only with part number specified

Les composants identifiés par une trame et une marque **▲** sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié

7-1-1. SCREEN FRAME AND CONTROL PANEL (KP-46V15 (US/CND)/46V16)

●: BVTP3 × 12 7-685-648-79

□: BVTP4 × 12 7-685-661-79

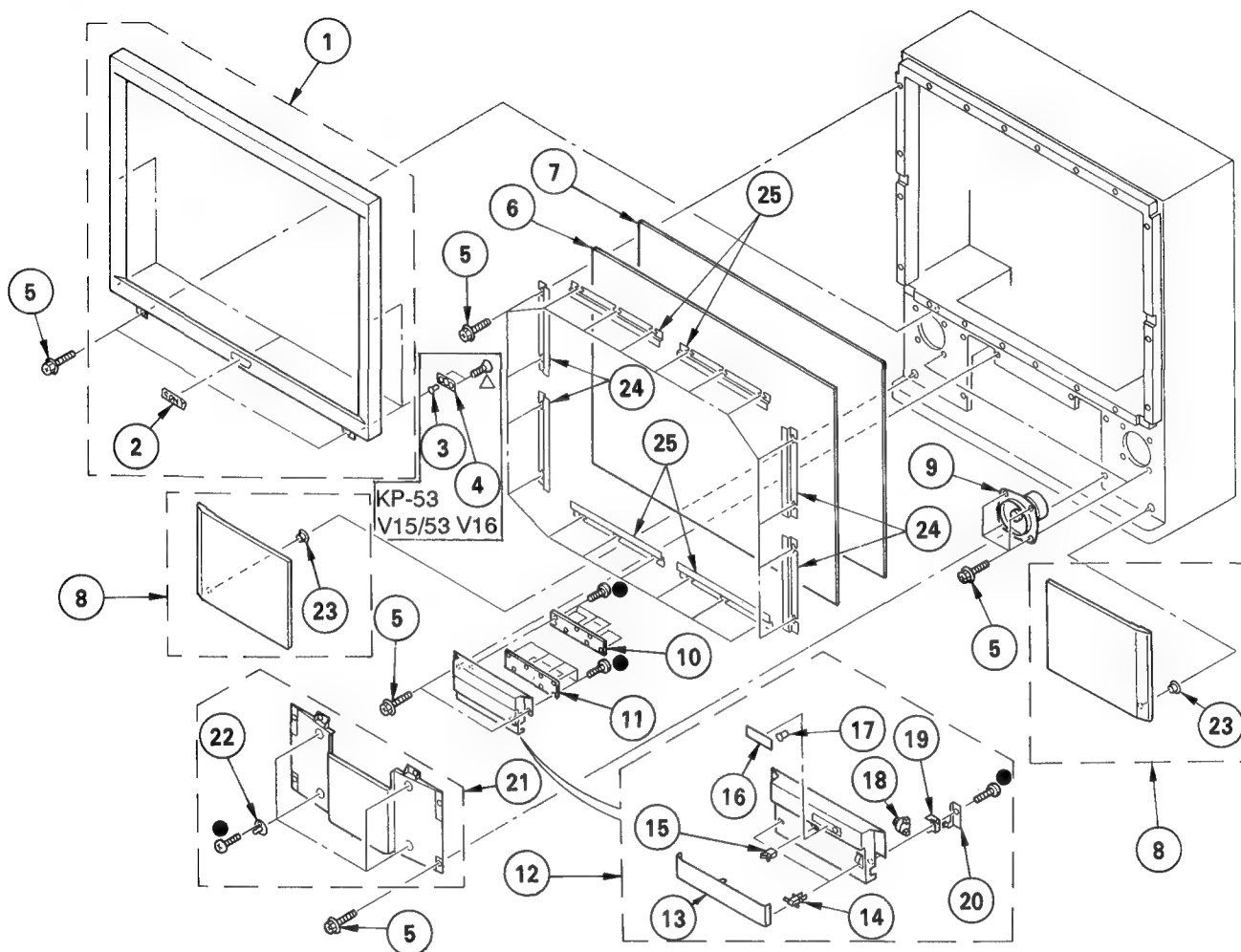


REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
1	X-4030-623-1	FRAME ASSY, SCREEN	2	12	3-703-035-11	SHAFT, LID	
2	4-381-079-01	EMBLEM (NO.10), SONY		13	4-374-714-01	CATCH, PUSH	
3	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD		14	4-036-510-21	PANEL, INDICATOR	
4	4-037-360-11	PLATE (L), DIFFUSION		15	*4-374-987-01	GUIDE, LIGHT	
5	4-037-359-11	PLATE (F), DIFFUSION		16	3-720-417-01	DAMPER, OIL	
6	X-4030-639-1	GRILLE ASSY, SPEAKER (KP-46V15(US/CND))	21	17	4-397-047-01	HOLDER, DAMPER	
	X-4031-106-1	GRILLE ASSY, SPEAKER (KP-46V16)	21	18	4-036-513-01	SPRING, LID	
7	1-544-768-11	SPEAKER (13CM) (COAXIAL)		19	X-4030-618-1	COVER ASSY, FRONT (KP-46V15(US/CND))	20
8	*1-643-591-11	H1 BOARD			X-4030-622-1	COVER ASSY, FRONT (KP-46V16)	20
9	*1-643-592-13	H2 BOARD		20	4-843-806-00	STRIKE	
10	X-4031-107-1	PANEL ASSY, CONTROL (KP-46V16)	11~18	21	4-838-438-00	LATCH	
	X-4031-195-1	PANEL ASSY, CONTROL (KP-46V15(US/CND))	11~18	22	*4-036-092-21	HOLDER (S), SCREEN	
11	4-036-511-01	LID, CONTROL (KP-46V16)		23	*4-036-091-21	HOLDER (L), SCREEN	
	4-036-511-11	LID, CONTROL (KP-46V15(US/CND))					

7-1-2. SCREEN FRAME AND CONTROL PANEL (KP-53V15/53V16/61V15 (US/CND))

●: BVTP3 × 12 7-685-648-79

△: KTP3 × 10 7-685-247-14

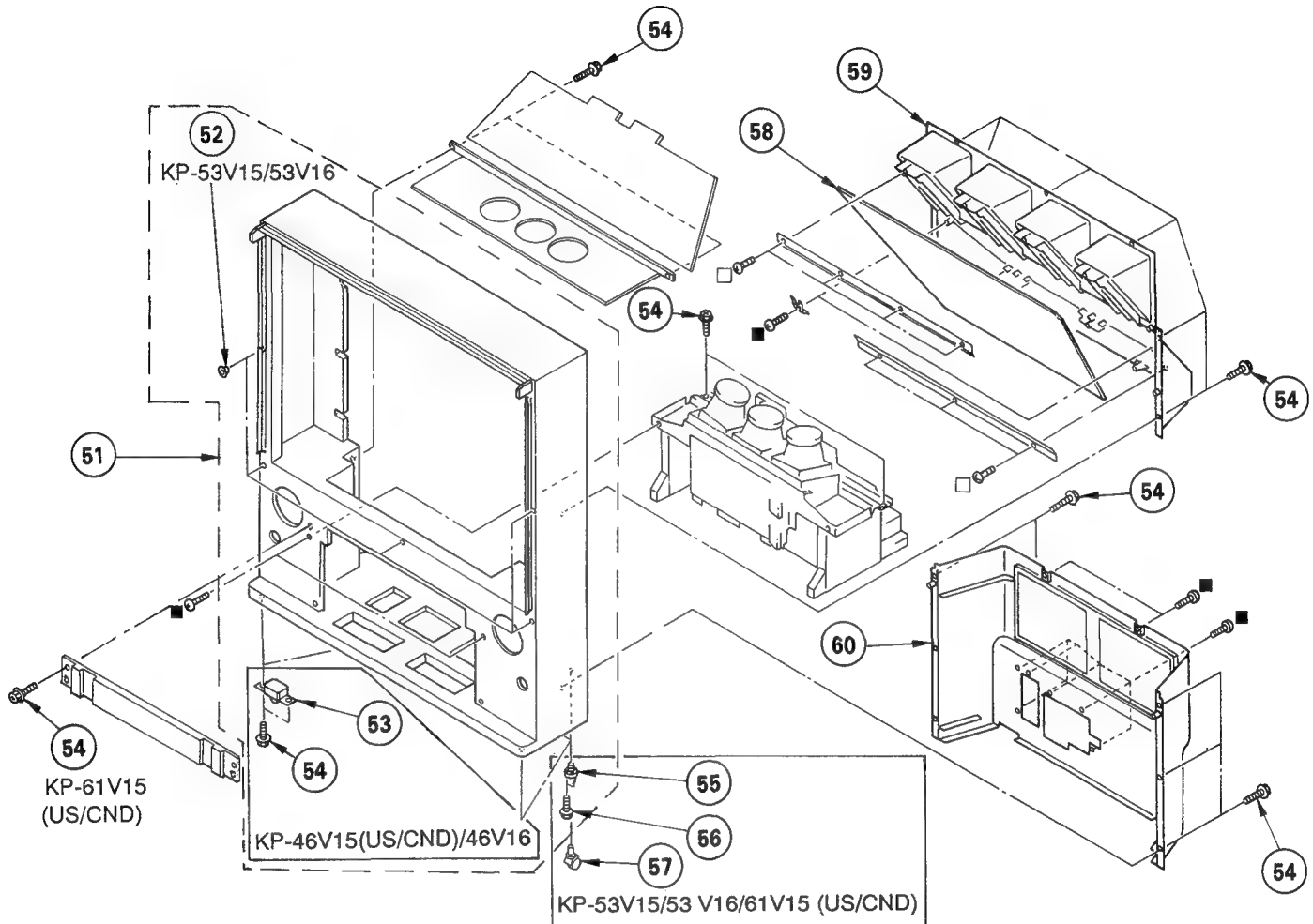


REF.NO.	PART NO.	DESCRIPTION	REMARK	REF NO.	PART NO.	DESCRIPTION	REMARK
1	X-4030-616-1	FRAME ASSY, SCREEN (KP-53V15/53V16)	2	13	4-036-511-01	LID, CONTROL (KP-53V16)	
	X-4031-080-1	FRAME ASSY, SCREEN (KP-61V15(US/CND))	2		4-036-511-11	LID, CONTROL (KP-53V15/61V15(US/CND))	
2	4-381-079-01	EMBLEM (NO.10), SONY (KP-61V15(US/CND))		14	3-703-035-11	SHAFT, LID	
	4-381-079-21	EMBLEM (NO.10), SONY (KP-53V15/53V16)		15	4-374-714-01	CATCH, PUSH	
3	4-838-452-00	STRIKE (KP-53V15/53V16)		16	4-036-510-21	PANEL, INDICATOR	
4	4-838-453-00	SUPPORT (KP-53V15/53V16)		17	*4-374-987-01	GUIDE, LIGHT	
5	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD		18	3-720-417-01	DAMPER, OIL	
6	4-036-466-11	PLATE (L), DIFFUSION (KP-53V15/53V16)		19	4-397-047-01	HOLDER, DAMPER	
	4-040-124-11	PLATE (L), DIFFUSION (KP-61V15(US/CND))		20	4-036-513-01	SPRING, LID	
7	4-036-469-11	PLATE (F), DIFFUSION (KP-53V15/53V16)		21	X-4030-615-1	COVER ASSY, FRONT (KP-53V16)	22
	4-040-123-11	PLATE (F), DIFFUSION (KP-61V15(US/CND))			X-4030-619-1	COVER ASSY, FRONT	22
8	X-4030-637-1	GRILLE ASSY, SPEAKER (KP-53V15)	23				(KP-53V15/61V15(US/CND))
	X-4031-079-1	GRILLE ASSY, SPEAKER (KP-61V15(US/CND))	23	22	4-843-806-00	STRIKE	
				23	4-838-438-00	LATCH	
	X-4031-144-1	GRILLE ASSY, SPEAKER (KP-53V16)	23	24	*4-036-499-01	HOLDER (S), SCREEN (KP-53V15/53V16)	
9	1-544-768-11	SPEAKER (13CM) (COAXIAL)			*4-040-122-01	HOLDER (S), SCREEN (KP-61V15(US/CND))	
10	*1-643-591-11	H1 BOARD		25	*4-036-498-01	HOLDER (L), SCREEN (KP-53V15/53V16)	
11	*1-643-592-11	H2 BOARD			*4-040-120-01	HOLDER (L), SCREEN (KP-61V15(US/CND))	
12	X-4031-107-1	PANEL ASSY, CONTROL (KP-53V16)	13~20				
	X-4031-195-1	PANEL ASSY, CONTROL (KP-53V15)	13~20				
	X-4031-267-1	PANEL ASSY, CONTROL	13~20				
		(KP-61V15(US/CND))					


7-2. CABINET


□: BVTP4 × 12 7-685-661-79

■: BVTP4 × 16 7-685-663-79



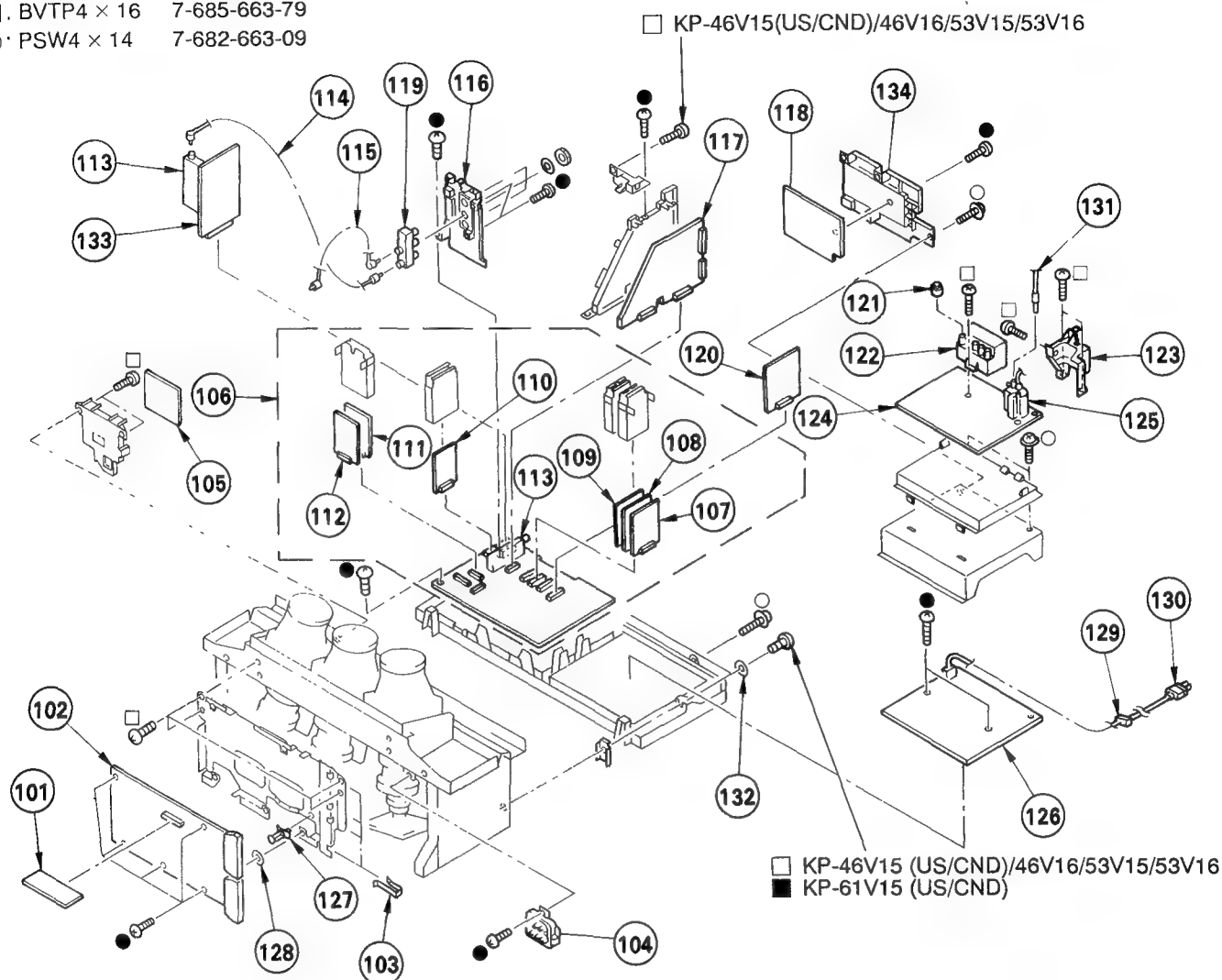
REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
51	*X-4031-081-1	CABINET ASSY (KP-61V15(US/CND))	55, 56	57	4-040-508-01	CASTER (KP-61V15(US/CND))	
	*X-4031-105-1	CABINET ASSY (KP-46V16)	53, 54		4-032-343-11	CASTER (KP-53V15/53V16)	
	*X-4031-109-1	CABINET ASSY (KP-46V15(US/CND))	53, 54	58	4-037-349-01	MIRROR (53), REFLECTION	
	*X-4031-118-1	CABINET ASSY (KP-53V16)	52, 55, 56			(KP-53V15/53V16/61V15(US/CND))	
	*X-4030-636-1	CABINET ASSY (KP-53V15)	52, 55, 56		4-037-534-01	MIRROR (46), REFLECTION	
						(KP-46V15(US/CND)/46V16)	
52	4-838-438-00	LATCH (KP-53V15/53V16)		59	4-036-462-01	COVER (46"), MIRROR	
53	4-040-755-01	CASTER(DIA. 30) (KP-46V15(US/CND)/46V16)				(KP-46V15(US/CND)/46V16)	
54	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD			4-036-474-01	COVER (53"), MIRROR	
55	4-030-850-01	SOCKET, CASTER				(KP-53V15/53V16/61V15(US/CND))	
		(KP-53V15/53V16/61V15(US/CND))		60	X-4030-549-1	COVER ASSY, BACK	
56	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD					
		(KP-61V15(US/CND))					

Les composants identifiés par une trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

7-3. CHASSIS

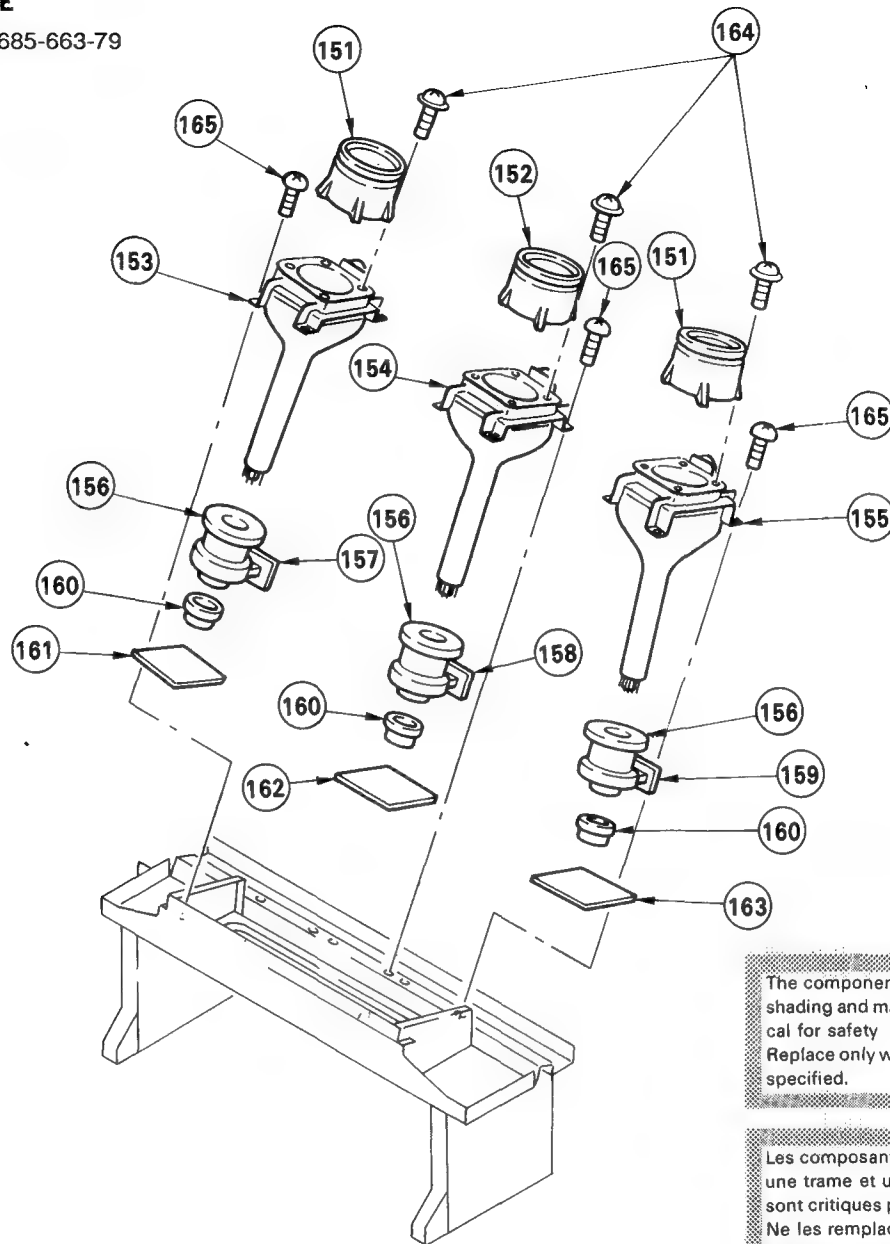
- : BVTP3 × 12 7-685-648-79
- : BVTP4 × 12 7-685-661-79
- : BVTP4 × 16 7-685-663-79
- : PSW4 × 14 7-682-663-09



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
101	*1-644-278-11	DS BOARD		118	*A-1394-432-A	UT BOARD, COMPLETE	
102	*A-1346-117-A	D BOARD, COMPLETE		119	1-417-178-11	SELECTOR, ANTENNA (AS-2)	
103	*4-393-401-11	SPRING, TRANSISTOR		120	*A-1342-214-A	V BOARD, COMPLETE	
104	*1-241-744-11	RESISTOR ASSY (HIGH-VOLTAGE)		121	4-373-137-01	CAP (Z), RUBBER	
105	*A-1394-421-A	S BOARD, COMPLETE		122	*1-453-108-11	DC BLOCK, HIGH-VOLTAGE	
106	*A-1297-078-A	A BOARD, COMPLETE	107~112	123	4-034-482-01	COVER, FBT	
		(KP-46V15(US/CND)/46V16/61V15(US/CND))		124	*A-1390-351-A	N BOARD, COMPLETE	
	*A-1297-108-A	A BOARD, COMPLETE (KP-53V15/53V16)		125	*1-453-121-11	TRANSFORMER ASSY, FLYBACK (BX-263084)	
107	*A-1346-138-A	E1 BOARD, COMPLETE	107~112	126	*A-1316-149-A	G BOARD, COMPLETE	
108	*A-1346-137-A	E2 BOARD, COMPLETE		127	*3-670-570-21	SPACER, SUPPORT	
109	*A-1306-436-A	M BOARD, COMPLETE		128	4-866-147-00	WASHER	
110	*A-1195-066-A	X1 BOARD, COMPLETE		129	*4-388-328-11	GROMMET, AC CORD	
111	*A-1394-444-A	X2 BOARD, COMPLETE		130	*1-696-002-12	CORD, POWER (WITH NOISE FILTER)	
112	*A-1394-443-A	Y2 BOARD, COMPLETE		131	1-574-590-31	LEAD ASSY, HIGH-VOLTAGE	
113	*1-693-102-22	TUNER (BTP-XA401)		132	4-039-112-01	WASHER, WAVE	
114	*1-557-056-31	CABLE, P-P		133	*A-1195-068-A	P3 BOARD, COMPLETE	
115	*1-555-400-00	CABLE, PIN		134	4-036-138-01	PANEL, MAIN CONNECTOR	
116	4-036-137-03	PANEL, SUB CONNECTOR					
117	*A-1394-420-A	U BOARD, COMPLETE					

7-4. PICTURE TUBE

■: BVTP4 × 16 7-685-663-79



The components identified by
 shading and mark ▲ are critical
 for safety.
 Replace only with part number
 specified.

Les composants identifiés par
 une trame et une marque ▲
 sont critiques pour la sécurité.
 Ne les remplacer que par une
 pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
151	4-034-057-01	LENS (LINNIT) (KP-46V15(US/CND)/46V16/53V15/53V16)		155	▲ 8-736-633-05	PICTURE TUBE 07MK(2) (SD-249) (KP-46V15(US/CND)/46V16/53V15/53V16)	
	4-040-131-01	LENS (LINNIT POINT 6) (KP-61V15(US/CND))			▲ 8-736-640-05	PICTURE TUBE 07MK2(8) (SD-249) (KP-61V15(US/CND))	
152	4-034-057-11	LENS (LINNIT) (KP-46V15(US/CND)/46V16/53V15/53V16)		156	▲ 1-451-396-21	DEFLECTION YOKE (Y936PA)	
	4-040-131-11	LENS (LINNIT POINT 6) (KP-61V15(US/CND))		157	*A-1390-340-A	ZR BOARD, COMPLETE	
153	▲ 8-736-633-05	PICTURE TUBE 07MK(8) (SD-249) (KP-46V15(US/CND)/46V16/53V15/53V16)		158	*A-1390-346-A	ZG BOARD, COMPLETE	
	▲ 8-736-641-05	PICTURE TUBE 07MK2(8) (SD-249) (KP-61V15(US/CND))		159	*A-1390-347-A	ZB BOARD, COMPLETE	
154	▲ 8-736-631-05	PICTURE TUBE 07MK(G) (SD-249) (KP-46V15(US/CND)/46V16/53V15/53V16)		160	▲ 1-452-443-13	NECK ASSY, PICTURE TUBE (NA367)	
	▲ 8-736-634-05	PICTURE TUBE 07MK3(G) (SD-249) (KP-61V15(US/CND))		161	*A-1331-259-A	CR BOARD, COMPLETE	
				162	*A-1331-260-A	CG BOARD, COMPLETE	
				163	*A-1331-261-A	CB BOARD, COMPLETE	
				164	3-701-810-91	SCREW, TERMINAL	
				165	7-685-661-79	SCREW (DIA. 4X12), TAPPING	

P3

SECTION 8 ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark Δ are critical for safety
Replace only with part number specified

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité
Ne les remplacer que par une pièce portant le numéro spécifié

• Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

• All resistors are in ohms
• F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS

• MF : μ F, PF : μ F

COILS

• MMH : mH, UH : μ H

• The components identified by Δ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation
Should replacement be required, replace only with the value originally used

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1195-068-A	P3 BOARD, COMPLETE *****		IC2003	8-759-805-37	IC L78LR05D-WA	
				IC2004	8-759-066-51	IC MB88733-143	
				IC2005	8-759-803-25	IC CXK1006L	
		<CAPACITOR>				<JACK>	
C2001	1-124-910-11	ELECT 47MF 20% 50V		J2001	*1-573-962-11	CONNECTOR (MALE) 50P	
C2002	1-124-910-11	ELECT 47MF 20% 50V				<COIL>	
C2003	1-124-119-00	ELECT 330MF 20% 16V		L2002	1-410-663-31	INDUCTOR 10UH	
C2004	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V		L2003	1-410-667-31	INDUCTOR 22UH	
C2005	1-124-261-00	ELECT 10MF 20% 50V				<CONNECTOR>	
C2006	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V		P3-39	*1-564-521-11	PLUG, CONNECTOR 6P	
C2007	1-126-157-11	ELECT 10MF 20% 16V		P3-41	*1-564-519-11	PLUG, CONNECTOR 4P	
C2008	1-163-031-11	CERAMIC CHIP 0.01MF 5% 50V				<TRANSISTOR>	
C2009	1-163-157-00	FILM 0.022MF 5% 50V		Q2001	8-729-216-22	TRANSISTOR 2SA1162-G	
C2010	1-164-161-11	CERAMIC CHIP 0.0022MF 50V		Q2002	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2011	1-126-157-11	ELECT 10MF 20% 16V		Q2003	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2013	1-126-301-11	ELECT 1MF 20% 50V		Q2004	8-729-216-22	TRANSISTOR 2SA1162-G	
C2014	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V		Q2005	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2015	1-163-117-00	CERAMIC CHIP 100PF 5% 50V		Q2006	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2016	1-163-109-00	CERAMIC CHIP 47PF 5% 50V		Q2007	8-729-216-22	TRANSISTOR 2SA1162-G	
C2017	1-163-109-00	CERAMIC CHIP 47PF 5% 50V		Q2008	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R	
C2018	1-124-465-00	ELECT 0.47MF 20% 50V		Q2009	8-729-216-22	TRANSISTOR 2SA1162-G	
C2019	1-126-103-11	ELECT 470MF 20% 16V		Q2010	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2020	1-163-031-11	CERAMIC CHIP 0.01MF 50V		Q2011	8-729-216-22	TRANSISTOR 2SA1162-G	
C2021	1-126-157-11	ELECT 10MF 20% 16V		Q2012	8-729-216-22	TRANSISTOR 2SA1162-G	
C2022	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V		Q2030	8-729-216-22	TRANSISTOR 2SA1162-G	
C2023	1-163-119-00	CERAMIC CHIP 120PF 5% 50V		Q2031	8-729-216-22	TRANSISTOR 2SA1162-G	
C2024	1-124-465-00	ELECT 0.47MF 20% 50V		Q2036	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2025	1-126-157-11	ELECT 10MF 20% 16V		Q2037	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2027	1-163-103-00	CERAMIC CHIP 27PF 5% 50V				<RESISTOR>	
C2028	1-163-107-00	CERAMIC CHIP 39PF 5% 50V		R2002	*1-216-357-91	METAL GLAZE 4.7K 5% 1/10W	
C2064	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V		R2003	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
C2065	1-126-320-11	ELECT 10MF 20% 16V		R2004	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
C2066	1-126-157-11	ELECT 10MF 20% 16V		R2006	1-216-689-11	METAL GLAZE 39K 5% 1/10W	
C2067	1-126-157-11	ELECT 10MF 20% 16V		R2007	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
C2068	1-124-916-11	ELECT 22MF 20% 50V		R2008	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
C2075	1-163-117-00	CERAMIC CHIP 100PF 5% 50V		R2009	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
		<COMPOSITION CIRCUIT BLOCK>		R2010	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
CP2001	1-236-472-11	NETWORK, RES, THICK FILM		R2011	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
		<DIODE>		R2012	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
D2006	8-719-105-45	DIODE RD3.3M-B1		R2013	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
D2007	8-719-911-19	DIODE 1SS119		R2014	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
		<IC>					
IC2001	8-759-231-58	IC TA7812S					
IC2002	8-759-700-48	IC NJM2903S					

The components identified by shading and mark Δ are critical for safety
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KP-46V15/46V16/61V15
RM-Y115

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REF.NO.	PART NO.	DESCRIPTION	REMARK
R2015	1-216-033-00	METAL GLAZE 220 5%	1/10W
R2016	1-216-295-00	METAL GLAZE 0 5%	1/10W
R2017	1-216-047-00	METAL GLAZE 820 5%	1/10W
R2018	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2019	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2020	1-216-037-00	METAL GLAZE 330 5%	1/10W
R2021	1-216-095-00	METAL GLAZE 82K 5%	1/10W
R2022	1-216-109-00	METAL GLAZE 330K 5%	1/10W
R2023	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R2024	1-216-047-00	METAL GLAZE 820 5%	1/10W
R2025	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R2026	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R2027	1-216-033-00	METAL GLAZE 220 5%	1/10W
R2028	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R2029	1-216-033-00	METAL GLAZE 220 5%	1/10W
R2030	1-216-009-00	METAL GLAZE 22 5%	1/10W
R2031	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R2032	1-216-033-00	METAL GLAZE 220 5%	1/10W
R2033	1-216-033-00	METAL GLAZE 220 5%	1/10W
R2037	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R2038	1-216-025-00	METAL GLAZE 100 5%	1/10W
R2039	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R2040	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R2041	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R2046	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R2047	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2048	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R2049	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R2050	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W
R2051	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2052	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R2053	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2054	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2055	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2056	1-216-295-00	METAL GLAZE 0 5%	1/10W
R2057	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2058	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2059	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2060	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2061	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2062	1-216-295-00	METAL GLAZE 0 5%	1/10W
R2063	1-216-025-00	METAL GLAZE 100 5%	1/10W
R2064	1-216-025-00	METAL GLAZE 100 5%	1/10W
R2093	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R2124	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2125	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R2127	1-216-071-00	METAL GLAZE 8.2K 5%	1/10W
R2128	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W
R2129	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W
R2130	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
R2131	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
R2132	1-216-676-11	METAL CHIP 11K 0.50%	1/10W
R2147	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R2148	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2149	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R2150	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R2151	1-216-085-00	METAL GLAZE 33K 5%	1/10W
<VARIABLE RESISTOR>			
RV2001	1-238-015-11	RES, ADJ, CARBON 4.7K	

REF.NO.	PART NO.	DESCRIPTION	REMARK
<TUNER>			
TU2001	1-567-192-22	TUNER (RTP-XA401)	
<CRYSTAL>			
X2001	1-567-192-11	OSCILLATOR, CERAMIC	

*A-1297-078-A	A BOARD, COMPLETE ***** (KP-46V15(US/CND)/46V16/61V15(US/CND))		
*A-1297-108-A	A BOARD, COMPLETE (KP-53V15/53V16) *****		
<CONNECTOR>			
A-1	*1-564-514-11	PLUG, CONNECTOR 11P	
A-2	*1-564-512-11	PLUG, CONNECTOR 9P	
A-3	*1-564-507-11	PLUG, CONNECTOR 4P	
A-4	*1-564-508-11	PLUG, CONNECTOR 5P	
A-5	*1-564-511-51	PLUG, CONNECTOR 8P	
A-8	*1-564-506-11	PLUG, CONNECTOR 3P	
A-10	*1-564-511-81	PLUG, CONNECTOR 8P	
A-11	*1-564-511-71	PLUG, CONNECTOR 8P	
A-12	1-573-297-11	CONNECTOR, BOARD TO BOARD 18P	
A-13	1-573-297-11	CONNECTOR, BOARD TO BOARD 18P	
A-14	*1-564-513-11	PLUG, CONNECTOR 10P	
A-15	*1-564-508-11	PLUG, CONNECTOR 5P	
A-16	*1-564-508-11	PLUG, CONNECTOR 5P	
A-17	*1-564-508-11	PLUG, CONNECTOR 5P	
A-18	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P	
A-19	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P	
A-20	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P	
A-21	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
A-22	1-573-297-11	CONNECTOR, BOARD TO BOARD 18P	
A-25	*1-564-506-11	PLUG, CONNECTOR 3P	
A-27	*1-573-979-11	CONNECTOR, BOARD TO BOARD 11P	
A-56	*1-564-508-11	PLUG, CONNECTOR 5P	
P3-1	*1-573-960-11	CONNECTOR (FEMALE) 50P	
<CAPACITOR>			
C201	1-124-910-11	ELECT 47MF	20% 50V
C202	1-124-903-11	ELECT 1MF	20% 50V
C203	1-130-495-00	MYLAR 0.1MF	5% 50V
C204	1-124-477-11	ELECT 47MF	20% 16V
C205	1-124-557-11	ELECT 1000MF	20% 25V
C206	1-126-101-11	ELECT 100MF	20% 16V
C207	1-124-242-00	ELECT 33MF	20% 16V
C210	1-102-121-00	CERAMIC 0.0022MF	10% 50V
C212	1-126-803-11	ELECT 47MF	20% 16V
C213	1-126-103-11	ELECT 470MF	20% 16V
C214	1-126-101-11	ELECT 100MF	20% 16V
C215	1-126-803-11	ELECT 47MF	20% 50V
C216	1-126-101-11	ELECT 100MF	20% 16V
C217	1-126-803-11	ELECT 47MF	20% 25V
C218	1-126-103-11	ELECT 470MF	20% 16V
C219	1-124-443-00	ELECT 100MF	20% 10V
C220	1-126-803-11	ELECT 47MF	20% 25V
C223	1-126-803-11	ELECT 47MF	20% 25V
C224	1-124-261-00	ELECT 10MF	20% 50V
C225	1-124-120-11	ELECT 220MF	20% 16V
C226	1-124-120-11	ELECT 220MF	20% 16V
C227	1-124-621-11	ELECT 3300MF	20% 6.3V

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une trame et une marque Δ
sont critiques pour la sécurité.
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for safety
Replace only with part number
specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
C299	1-126-101-11	ELECT	100MF 20% 16V
C502	1-126-182-11	ELECT	0.47MF 20% 50V
C503	1-130-487-00	MYLAR	0.022MF 5% 50V
C504	1-136-153-00	FILM	0.01MF 5% 50V
C507	1-106-383-00	MYLAR	0.047MF 200V
C508	1-102-973-00	CERAMIC	100PF 5% 50V
C509	1-102-030-00	CERAMIC	330PF 10% 500V
C510	1-136-565-11	FILM	0.015MF 5% 50V
C512	1-136-528-11	FILM	1MF 5% 200V
C513	1-136-153-00	FILM	0.01MF 5% 50V
C514	1-124-477-11	ELECT	47MF 20% 16V
C522	1-123-024-21	ELECT	33MF 160V
C523	1-106-383-00	MYLAR	0.047MF 200V
C528	1-124-662-11	ELECT	220MF 20% 50V
C534	1-124-011-00	ELECT	220MF 20% 16V
C535	1-124-011-00	ELECT	220MF 20% 16V
C536	1-124-662-11	ELECT	220MF 20% 50V
C537	1-124-662-11	ELECT	220MF 20% 50V
C539	1-124-907-11	ELECT	10MF 20% 50V
C542	1-136-153-00	FILM	0.01MF 5% 50V
C543	1-136-153-00	FILM	0.01MF 5% 50V
C544	1-136-153-00	FILM	0.01MF 5% 50V
C545	1-136-153-00	FILM	0.01MF 5% 50V
C569	1-126-355-11	ELECT	33MF 20% 160V
C1401	1-124-910-11	ELECT	47MF 20% 50V
C1402	1-126-157-11	ELECT	10MF 20% 16V
C1403	1-126-157-11	ELECT	10MF 20% 16V
C1404	1-126-157-11	ELECT	10MF 20% 16V
C1405	1-124-910-11	ELECT	47MF 20% 50V
C1406	1-126-101-11	ELECT	100MF 20% 16V
C1407	1-126-057-11	ELECT	2200MF 20% 50V
C1408	1-136-165-00	FILM	0.1MF 5% 50V
C1409	1-136-165-00	FILM	0.1MF 5% 50V
C1413	1-124-234-00	ELECT	22MF 20% 16V
C1424	1-126-057-11	ELECT	2200MF 20% 50V
C1425	1-126-057-11	ELECT	2200MF 20% 50V
C1426	1-126-157-11	ELECT	10MF 20% 16V
C1429	1-126-101-11	ELECT	100MF 20% 16V
C1430	1-126-101-11	ELECT	100MF 20% 16V
C1431	1-124-916-11	ELECT	22MF 20% 50V
C1435	1-124-916-11	ELECT	22MF 20% 25V
C1440	1-126-336-11	ELECT	220MF 20% 25V
C1601	1-130-483-00	MYLAR	0.01MF 5% 50V
C1603	1-136-153-00	FILM	0.01MF 5% 50V
C1607	1-124-907-11	ELECT	10MF 20% 50V
C1608	1-136-153-00	FILM	0.01MF 5% 50V
C1609	1-136-153-00	FILM	0.01MF 5% 50V
C1610	1-124-916-11	ELECT	22MF 20% 50V
<DIODE>			
D203	8-719-911-19	DIODE 1SS119	
D204	8-719-911-19	DIODE 1SS119	
D205	8-719-110-36	DIODE RD13ESB2	
D206	8-719-911-19	DIODE 1SS119	
D207	8-719-911-19	DIODE 1SS119	
D208	8-719-911-19	DIODE 1SS119	
D209	8-719-911-19	DIODE 1SS119	
D211	8-719-110-36	DIODE RD13ESB2	
D213	8-719-110-78	DIODE RD33ESB2	
D214	8-719-911-19	DIODE 1SS119	
D215	8-719-911-19	DIODE 1SS119	
D216	8-719-911-19	DIODE 1SS119	
D217	8-719-911-19	DIODE 1SS119	

REF.NO.	PART NO.	DESCRIPTION	REMARK
D219	8-719-911-19	DIODE 1SS119	
D220	8-719-510-48	DIODE D1N20R	
D221	8-719-911-19	DIODE 1SS119	
D222	8-719-911-19	DIODE 1SS119	
D223	8-719-911-19	DIODE 1SS119	
D501	8-719-971-20	DIODE ERC38-06	
D502	8-719-971-20	DIODE ERC38-06	
D503	8-719-300-80	DIODE RU-1C	
D504	8-719-109-88	DIODE RD5.6ESB1	
D505	8-719-900-63	DIODE V09C	(KP-46V15(US/CND) 46V16/61V15(US/CND))
D506	8-719-900-63	DIODE V09C	(KP-46V15(US/CND) 46V16/61V15(US/CND))
D507	8-719-970-89	DIODE DD50R	
D509	8-719-911-19	DIODE 1SS119	
D510	8-719-109-71	DIODE RD3.9ESB1	
D511	8-719-911-19	DIODE 1SS119	
D512	8-719-911-19	DIODE 1SS119	
D513	8-719-911-19	DIODE 1SS119	
D514	8-719-911-19	DIODE 1SS119	
D515	8-719-911-19	DIODE 1SS119	
D1401	8-719-911-19	DIODE 1SS119	
D1402	8-719-911-19	DIODE 1SS119	
D1403	8-719-911-19	DIODE 1SS119	
D1404	8-719-110-88	DIODE RD39ESB2	
D1405	8-719-110-88	DIODE RD39ESB2	
D1406	8-719-911-19	DIODE 1SS119	
D1407	8-719-110-88	DIODE RD39ESB2	
D1408	8-719-911-19	DIODE 1SS119	
D1409	8-719-110-88	DIODE RD39ESB2	
D1410	8-719-911-19	DIODE 1SS119	
D1607	8-719-911-19	DIODE 1SS119	
D1608	8-719-911-19	DIODE 1SS119	
JW266	8-719-911-19	DIODE 1SS119	
<IC>			
IC201	8-749-920-58	IC SI-3090CA	
IC204	4-382-854-11	SCREW (M3X10), P, SW (+); IC201	
IC204	8-759-171-05	IC UPC7805H	
IC205	4-382-854-11	SCREW (M3X10), P, SW (+); IC204	
IC205	8-759-144-82	IC UPC2405HF	
IC206	8-759-231-58	IC TA7812S	
IC207	4-382-854-11	SCREW (M3X10), P, SW (+); IC206	
IC207	8-749-920-58	IC SI-3090CA	
IC207	4-382-854-11	SCREW (M3X10), P, SW (+); IC207	
IC506	8-752-057-18	IC CXA1315P	
IC1401	8-759-168-24	IC TA8216H	
IC1601	4-382-854-11	SCREW (M3X10), P, SW (+); IC1401	
IC1601	8-752-058-71	IC CXA1656S	
<COIL>			
L201	1-408-429-00	INDUCTOR 470UH	
L205	1-410-645-31	INDUCTOR 100UH	
L206	1-408-416-00	INDUCTOR 39UH	
L212	1-410-312-11	INDUCTOR 0.22UH	
L501	1-460-196-11	COIL, HORIZONTAL LINEARITY	
L502	1-459-313-00	COIL WITH CORE (HWC)	
L515	1-410-645-31	INDUCTOR 100UH	

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KP-46V15/46V16/61V15
RM-Y115

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REF.NO.	PART NO.	DESCRIPTION	REMARK
<TRANSISTOR>			
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q202	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q203	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q501	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q502	8-729-014-88	TRANSISTOR 2SC4891-CA	
	4-382-854-11	SCREW (M3X10), P, SW (+); Q502	
Q504	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q505	8-729-201-32	TRANSISTOR 2SA1013-0	
Q506	8-729-201-32	TRANSISTOR 2SA1013-0	
Q507	8-729-304-92	TRANSISTOR 2SB649A-C	
Q508	8-729-204-16	TRANSISTOR 2SA1301-0	
	4-382-854-11	SCREW (M3X10), P, SW (+); Q508	
Q509	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q510	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q511	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q512	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1401	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1402	8-729-900-63	TRANSISTOR DTA124ES	
Q1407	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1408	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1601	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1602	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1603	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1604	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1605	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1606	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1620	8-729-119-76	TRANSISTOR 2SA1175-HFE	
<RESISTOR>			
R203	1-249-425-11	CARBON 4.7K 5% 1/4W	
R204	1-249-441-11	CARBON 100K 5% 1/4W	
R214	1-249-429-11	CARBON 10K 5% 1/4W	
R215	1-249-437-11	CARBON 47K 5% 1/4W	
R216	1-249-377-11	CARBON 0.47 5% 1/4W F	
R219	1-249-426-11	CARBON 5.6K 5% 1/4W	
R221	1-249-409-11	CARBON 220 5% 1/4W	
R222	1-249-436-11	CARBON 39K 5% 1/4W	
R223	1-249-434-11	CARBON 27K 5% 1/4W	
R224	1-249-409-11	CARBON 220 5% 1/4W	
R225	1-249-417-11	CARBON 1K 5% 1/4W	
R226	1-249-419-11	CARBON 1.5K 5% 1/4W	
R229	1-215-921-91	METAL OXIDE 4.7K 5% 3W F	
R230	1-215-921-91	METAL OXIDE 4.7K 5% 3W F	
R231	1-249-409-11	CARBON 220 5% 1/4W F	
R232	1-215-469-91	METAL OXIDE 12 5% 3W F	
R233	1-249-409-11	CARBON 220 5% 1/4W	
R234	1-249-409-11	CARBON 220 5% 1/4W	
R235	1-249-409-11	CARBON 220 5% 1/4W	
R236	1-249-409-11	CARBON 220 5% 1/4W	
R237	1-249-409-11	CARBON 220 5% 1/4W	
R238	1-249-409-11	CARBON 220 5% 1/4W	
R239	1-249-409-11	CARBON 220 5% 1/4W	
R240	1-215-469-91	METAL OXIDE 12 5% 3W F	
R241	1-249-401-11	CARBON 47 5% 1/4W	
R242	1-215-469-91	METAL OXIDE 12 5% 3W F	
R243	1-217-294-11	WIREWOUND 4.7 10% 5W F	
R244	1-217-296-11	WIREWOUND 6.8 10% 5W F	
R296	1-249-417-11	CARBON 1K 5% 1/4W	
R501	1-247-895-00	CARBON 470K 5% 1/4W	
R502	1-249-377-11	CARBON 0.47 5% 1/4W F	
R503	1-249-377-11	CARBON 0.47 5% 1/4W F	
R504	1-249-417-11	CARBON 1K 5% 1/4W	
R505	1-249-423-11	CARBON 3.3K 5% 1/4W	
R506	1-215-922-91	METAL OXIDE 6.8K 5% 3W F	

REF.NO.	PART NO.	DESCRIPTION	REMARK
R507	1-249-429-11	CARBON 10K 5% 1/4W F	
R508	1-215-373-91	METAL OXIDE 2.2 5% 3W F	
R509	1-215-478-91	METAL OXIDE 390 5% 3W F	
R511	1-249-407-11	CARBON 150 5% 1/4W	
R512	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R513	1-249-417-11	CARBON 1K 5% 1/4W	
R514	1-215-441-91	METAL OXIDE 27K 5% 3W F	
R515	1-249-432-11	CARBON 18K 5% 1/4W F	
R516	1-249-417-11	CARBON 1K 5% 1/4W	
R517	1-249-427-11	CARBON 6.8K 5% 1/4W F	
R518	1-249-422-11	CARBON 2.7K 5% 1/4W F	
R519	1-249-417-11	CARBON 1K 5% 1/4W F	
R520	1-215-923-91	METAL OXIDE 22K 5% 3W F	
R521	1-215-925-91	METAL OXIDE 22K 5% 3W F	
R522	1-249-421-11	CARBON 2.2K 5% 1/4W	
R523	1-249-434-11	CARBON 27K 5% 1/4W	
R524	1-249-434-11	CARBON 27K 5% 1/4W	
R525	1-215-922-91	METAL OXIDE 6.8K 5% 3W F	
R526	1-249-417-11	CARBON 1K 5% 1/4W	
R528	1-215-447-91	METAL OXIDE 27 5% 2W F	
R529	1-215-447-91	METAL OXIDE 27 5% 2W F	
R530	1-249-431-11	CARBON 15K 5% 1/4W	
R531	1-249-431-11	CARBON 15K 5% 1/4W	
R532	1-249-385-11	CARBON 2.2 5% 1/4W F	
R533	1-249-405-11	CARBON 100 5% 1/4W	
R534	1-249-405-11	CARBON 100 5% 1/4W	
R535	1-249-405-11	CARBON 100 5% 1/4W	
R536	1-217-318-11	WIREWOUND 330 10% 5W F	
R537	1-217-318-11	WIREWOUND 330 10% 5W F	
R550	1-249-385-11	CARBON 2.2 5% 1/4W F	
R558	1-249-385-11	CARBON 2.2 5% 1/4W F	
R559	1-249-409-11	CARBON 220 5% 1/4W	
R560	1-249-409-11	CARBON 220 5% 1/4W	
R563	1-249-429-11	CARBON 10K 5% 1/4W	
R564	1-249-429-11	CARBON 10K 5% 1/4W	
R565	1-249-427-11	CARBON 6.8K 5% 1/4W	
R566	1-249-427-11	CARBON 6.8K 5% 1/4W	
R567	1-249-427-11	CARBON 6.8K 5% 1/4W	
R568	1-249-427-11	CARBON 6.8K 5% 1/4W	
R569	1-249-426-11	CARBON 5.6K 5% 1/4W	
R570	1-249-441-11	CARBON 100K 5% 1/4W	
R571	1-249-429-11	CARBON 10K 5% 1/4W	
R572	1-249-429-11	CARBON 10K 5% 1/4W	
R574	1-249-417-11	CARBON 1K 5% 1/4W	
R579	1-249-417-11	CARBON 1K 5% 1/4W	
R1401	1-215-445-00	METAL 10K 1% 1/4W	
R1402	1-215-445-00	METAL 10K 1% 1/4W	
R1403	1-215-445-00	METAL 10K 1% 1/4W	
R1404	1-215-445-00	METAL 10K 1% 1/4W	
R1405	1-249-385-11	CARBON 2.2 5% 1/4W	
R1406	1-249-385-11	CARBON 2.2 5% 1/4W	
R1409	1-249-433-11	CARBON 22K 5% 1/4W	
R1410	1-249-433-11	CARBON 22K 5% 1/4W	
R1411	1-249-437-11	CARBON 47K 5% 1/4W	
R1427	1-215-865-91	METAL OXIDE 22K 5% 3W F	
R1428	1-215-865-91	METAL OXIDE 22K 5% 3W F	
R1431	1-249-405-11	CARBON 100 5% 1/4W	
R1433	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1434	1-249-423-11	CARBON 3.3K 5% 1/4W	
R1439	1-247-883-00	CARBON 150K 5% 1/4W	
R1440	1-249-417-11	CARBON 1K 5% 1/4W	
R1442	1-215-410-00	METAL 360 1% 1/4W	
R1443	1-215-410-00	METAL 360 1% 1/4W	

A

E1

Les composants identifiés par
 une trame et une marque Δ
 sont critiques pour la sécurité
 Ne les remplacer que par une
 pièce portant le numéro spécifié

The components identified by
 shading and mark Δ are critical
 for safety
 Replace only with part number
 specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R1520	1-249-429-11	CARBON	10K 5% 1/4W	C335	1-136-169-00	FILM	0.22MF 5% 50V
R1601	1-249-423-11	CARBON	3.3K 5% 1/4W	C336	1-126-301-11	ELECT	1MF 20% 50V
R1602	1-249-417-11	CARBON	1K 5% 1/4W	C337	1-126-301-11	ELECT	1MF 20% 50V
R1603	1-249-423-11	CARBON	3.3K 5% 1/4W	C338	1-124-584-00	ELECT	100MF 20% 10V
R1604	1-249-405-11	CARBON	100 5% 1/4W	C339	1-124-791-11	ELECT	1MF 20% 50V
R1605	1-249-405-11	CARBON	100 5% 1/4W	C340	1-163-009-11	CERAMIC CHIP	0.001MF 10% 50V
R1606	1-249-405-11	CARBON	100 5% 1/4W	C341	1-126-157-11	ELECT	10MF 20% 16V
R1607	1-249-415-11	CARBON	680 5% 1/4W	C342	1-124-465-00	ELECT	0.47MF 20% 50V
R1608	1-249-415-11	CARBON	680 5% 1/4W	C343	1-124-589-11	ELECT	47MF 20% 16V
R1609	1-249-415-11	CARBON	680 5% 1/4W	C344	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
R1610	1-249-405-11	CARBON	100 5% 1/4W	C345	1-124-767-00	ELECT	2.2MF 20% 50V
R1611	1-249-405-11	CARBON	100 5% 1/4W	C346	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
R1612	1-249-405-11	CARBON	100 5% 1/4W	C347	1-136-169-00	FILM	0.22MF 5% 50V
R1613	1-249-423-11	CARBON	3.3K 5% 1/4W	C348	1-163-117-00	CERAMIC CHIP	100PF 5% 50V
R1614	1-249-411-11	CARBON	330 5% 1/4W	C349	1-126-301-11	ELECT	1MF 20% 50V
R1622	1-249-423-11	CARBON	3.3K 5% 1/4W	C350	1-126-301-11	ELECT	1MF 20% 50V
R1624	1-249-424-11	CARBON	3.9K 5% 1/4W	C351	1-163-002-11	CERAMIC CHIP	270PF 10% 50V
R1627	1-249-429-11	CARBON	10K 5% 1/4W	C352	1-164-489-11	CERAMIC CHIP	0.22MF 10% 16V
R1630	1-249-434-11	CARBON	27K 5% 1/4W	C353	1-126-163-11	ELECT	4 7MF 20% 50V
R1631	1-249-433-11	CARBON	22K 5% 1/4W	C354	1-136-169-00	FILM	0.22MF 5% 50V
R1656	1-249-397-11	CARBON	22 5% 1/4W	C355	1-124-465-00	ELECT	0.47MF 20% 50V
R1657	1-249-397-11	CARBON	22 5% 1/4W	C356	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V
R1658	1-249-397-11	CARBON	22 5% 1/4W	C357	1-163-117-00	CERAMIC CHIP	100PF 5% 50V
<TRANSFORMER>				C358	1-124-767-00	ELECT	2.2MF 20% 50V
T501	1-439-545-11	TRANSFORMER, FERRITE		C360	1-137-491-11	FILM CHIP	0.1MF 5% 25V
T502	1-437-078-11	TRANSFORMER, HORIZONTAL DRIVE		C361	1-126-301-11	ELECT	1MF 20% 50V
<TUNER>				C362	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
TN101A	1-693-102-22	TUNER (RTF-XA401)		C363	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
*****				C364	1-126-301-11	ELECT	1MF 20% 50V
*A-1346-138-A E1 BOARD, COMPLETE				C365	1-164-343-11	CERAMIC CHIP	0.056MF 10% 25V
*****				C366	1-124-257-00	ELECT	2.2MF 20% 50V
<CAPACITOR>				C367	1-126-157-11	ELECT	10MF 20% 16V
C301	1-163-010-11	CERAMIC CHIP	0.0012MF 10% 50V	C368	1-124-234-00	ELECT	22MF 20% 16V
C303	1-126-157-11	ELECT	10MF 20% 16V	C369	1-163-001-11	CERAMIC CHIP	220PF 10% 50V
C304	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V	C370	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
C305	1-163-251-11	CERAMIC CHIP	100PF 5% 50V	C371	1-124-126-00	ELECT	47MF 20% 16V
C306	1-163-117-00	CERAMIC CHIP	100PF 5% 50V	C372	1-124-589-11	ELECT	47MF 20% 16V
C309	1-164-505-11	CERAMIC CHIP	2.2MF 16V	C373	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
C310	1-163-109-00	CERAMIC CHIP	47PF 5% 50V	C378	1-163-117-00	CERAMIC CHIP	100PF 5% 50V
C314	1-124-915-11	ELECT	10MF 20% 16V	C379	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
C315	1-164-505-11	CERAMIC CHIP	2.2MF 16V	C380	1-163-137-00	CERAMIC CHIP	680PF 5% 50V
C319	1-126-157-11	ELECT	10MF 20% 16V	C381	1-163-101-00	CERAMIC CHIP	22PF 5% 50V
C320	1-124-465-00	ELECT	0.47MF 20% 50V	C382	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C321	1-163-125-00	CERAMIC CHIP	220PF 5% 50V	C383	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C322	1-163-003-11	CERAMIC CHIP	330PF 10% 50V	C384	1-163-095-00	CERAMIC CHIP	12PF 5% 50V
C323	1-163-099-00	CERAMIC CHIP	18PF 5% 50V	<DIODE>			
C324	1-124-234-00	ELECT	22MF 20% 16V	D301	8-719-404-46	DIODE MA110	
C325	1-104-563-11	FILM CHIP	0.1MF 5% 16V	D302	8-719-404-46	DIODE MA110	
C326	1-104-563-11	FILM CHIP	0.1MF 5% 16V	D303	8-719-404-46	DIODE MA110	
C327	1-104-563-11	FILM CHIP	0.1MF 5% 16V	D304	8-719-404-46	DIODE MA110	
C328	1-126-157-11	ELECT	10MF 20% 16V	D305	8-719-404-46	DIODE MA110	
C329	1-126-157-11	ELECT	10MF 20% 16V	D306	8-719-158-15	DIODE RD5.6SB	
C330	1-126-157-11	ELECT	10MF 20% 16V	D307	8-719-404-46	DIODE MA110	
C331	1-126-301-11	ELECT	1MF 20% 50V	D310	8-719-158-15	DIODE RD5.6SB	
C332	1-124-584-00	ELECT	100MF 20% 10V	D312	8-719-404-46	DIODE MA110	
C333	1-163-037-11	CERAMIC CHIP	0.022MF 10% 25V	D313	8-719-404-46	DIODE MA110	
C334	1-137-491-11	FILM CHIP	0.1MF 5% 25V	D314	8-719-404-46	DIODE MA110	
				D315	8-719-404-46	DIODE MA110	
				D316	8-719-404-46	DIODE MA110	
				D317	8-719-404-46	DIODE MA110	
				D318	8-719-404-46	DIODE MA110	

REF.NO.	PART NO	DESCRIPTION	REMARK	REF.NO	PART NO.	DESCRIPTION	REMARK
D319	8-719-404-46	DIODE MA110		R302	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
D320	8-719-404-46	DIODE MA110		R303	1-216-079-00	METAL GLAZE 18K 5%	1/10W
D321	8-719-400-94	DIODE MA3130		R304	1-216-081-00	METAL GLAZE 22K 5%	1/10W
				R305	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W
		<DELAY LINE>		R306	1-216-081-00	METAL GLAZE 22K 5%	1/10W
DL302	1-415-817-11	DELAY LINE		R307	1-216-089-00	METAL GLAZE 47K 5%	1/10W
		<CONNECTOR>		R308	1-216-037-00	METAL GLAZE 330 5%	1/10W
E1-24	*1-564-523-11	PLUG, CONNECTOR 8P		R309	1-216-073-00	METAL GLAZE 10K 5%	1/10W
E1-25	*1-564-521-11	PLUG, CONNECTOR 6P		R310	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
E1-26	*1-564-522-11	PLUG, CONNECTOR 7P		R312	1-216-043-00	METAL GLAZE 560 5%	1/10W
E1-001	1-573-965-21	PIN, CONNECTOR (PC BOARD) 50P		R313	1-216-035-00	METAL GLAZE 270 5%	1/10W
		<IC>		R314	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
IC301	8-752-058-68	IC CXA1315M		R316	1-216-035-00	METAL GLAZE 270 5%	1/10W
IC302	8-752-057-68	IC CXA1464AS		R317	1-216-121-00	METAL GLAZE 1M 5%	1/10W
IC303	8-759-106-02	IC UPC4570G2		R320	1-216-039-00	METAL GLAZE 390 5%	1/10W
		<COIL>		R325	1-216-033-00	METAL GLAZE 220 5%	1/10W
L301	1-410-064-11	INDUCTOR 2.7MMH		R326	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
L307	1-410-944-31	INDUCTOR CHIP 15UH		R331	1-216-017-00	METAL GLAZE 47 5%	1/10W
L308	1-410-946-31	INDUCTOR CHIP 22UH		R332	1-216-657-11	METAL CHIP 1.8K 0.50%	1/10W
		<TRANSISTOR>		R333	1-216-051-00	METAL GLAZE 1.2K 5%	1/10W
Q301	8-729-925-79	TRANSISTOR 1MX3		R336	1-216-047-00	METAL GLAZE 820 5%	1/10W
Q302	8-729-925-79	TRANSISTOR 1MX3		R338	1-216-043-00	METAL GLAZE 560 5%	1/10W
Q303	8-729-422-27	TRANSISTOR 2SD601A-Q		R339	1-216-047-00	METAL GLAZE 820 5%	1/10W
Q304	8-729-907-46	TRANSISTOR 1MZ1		R340	1-216-651-11	METAL CHIP 1K 0.50%	1/10W
Q305	8-729-925-79	TRANSISTOR 1MX3		R341	1-216-043-00	METAL GLAZE 560 5%	1/10W
Q306	8-729-422-27	TRANSISTOR 2SD601A-Q		R343	1-216-077-00	METAL GLAZE 15K 5%	1/10W
Q307	8-729-903-10	TRANSISTOR FMW1		R344	1-216-081-00	METAL GLAZE 22K 5%	1/10W
Q309	8-729-422-27	TRANSISTOR 2SD601A-Q		R345	1-216-292-11	METAL GLAZE 8.2M 5%	1/8W
Q310	8-729-422-27	TRANSISTOR 2SD601A-Q		R346	1-216-081-00	METAL GLAZE 22K 5%	1/10W
Q311	8-729-403-27	TRANSISTOR XN4401		R347	1-216-081-00	METAL GLAZE 22K 5%	1/10W
Q312	8-729-422-27	TRANSISTOR 2SD601A-Q		R348	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q314	8-729-403-27	TRANSISTOR XN4401		R349	1-216-295-00	METAL GLAZE 0 5%	1/10W
Q315	8-729-422-27	TRANSISTOR 2SD601A-Q		R350	1-216-089-00	METAL GLAZE 47K 5%	1/10W
Q316	8-729-422-27	TRANSISTOR 2SD601A-Q		R351	1-216-674-11	METAL CHIP 9.1K 0.50%	1/10W
Q317	8-729-216-22	TRANSISTOR 2SA1162-G		R352	1-216-011-00	METAL GLAZE 27 5%	1/10W
Q321	8-729-925-79	TRANSISTOR 1MX3		R353	1-216-001-00	METAL GLAZE 10 5%	1/10W
Q322	8-729-216-22	TRANSISTOR 2SA1162-G		R354	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q323	8-729-422-27	TRANSISTOR 2SD601A-Q		R355	1-216-001-00	METAL GLAZE 10 5%	1/10W
Q324	8-729-216-22	TRANSISTOR 2SA1162-G		R356	1-216-001-00	METAL GLAZE 10 5%	1/10W
Q325	8-729-216-22	TRANSISTOR 2SA1162-G		R357	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q326	8-729-422-27	TRANSISTOR 2SD601A-Q		R358	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q327	8-729-422-27	TRANSISTOR 2SD601A-Q		R359	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q328	8-729-422-27	TRANSISTOR 2SD601A-Q		R360	1-216-119-00	METAL GLAZE 820K 5%	1/10W
Q329	8-729-925-79	TRANSISTOR 1MX3		R361	1-216-025-00	METAL GLAZE 100 5%	1/10W
Q330	8-729-925-79	TRANSISTOR 1MX3		R362	1-216-079-00	METAL GLAZE 18K 5%	1/10W
Q333	8-729-925-79	TRANSISTOR 1MX3		R363	1-216-295-00	METAL GLAZE 0 5%	1/10W
Q334	8-729-422-27	TRANSISTOR 2SD601A-Q		R364	1-216-045-00	METAL GLAZE 680 5%	1/10W
Q335	8-729-907-46	TRANSISTOR 1MZ1		R365	1-216-017-00	METAL GLAZE 47 5%	1/10W
Q340	8-729-422-27	TRANSISTOR 2SD601A-Q		R366	1-216-001-00	METAL GLAZE 10 5%	1/10W
Q342	8-729-925-79	TRANSISTOR 1MX3		R367	1-216-045-00	METAL GLAZE 680 5%	1/10W
Q344	8-729-216-22	TRANSISTOR 2SA1162-G		R368	1-216-001-00	METAL GLAZE 10 5%	1/10W
		<RESISTOR>		R369	1-216-033-00	METAL GLAZE 220 5%	1/10W
R301	1-216-025-00	METAL GLAZE 100 5%	1/10W	R370	1-216-033-00	METAL GLAZE 220 5%	1/10W
				R371	1-216-033-00	METAL GLAZE 220 5%	1/10W
				R372	1-216-031-00	METAL GLAZE 180 5%	1/10W
				R373	1-216-671-11	METAL CHIP 6.8K 0.50%	1/10W
				R374	1-216-037-00	METAL GLAZE 330 5%	1/10W
				R375	1-216-037-00	METAL GLAZE 330 5%	1/10W
				R376	1-216-037-00	METAL GLAZE 330 5%	1/10W
				R377	1-216-033-00	METAL GLAZE 220 5%	1/10W
				R378	1-216-033-00	METAL GLAZE 220 5%	1/10W
				R379	1-216-033-00	METAL GLAZE 220 5%	1/10W
				R380	1-216-033-00	METAL GLAZE 220 5%	1/10W
				R381	1-216-033-00	METAL GLAZE 220 5%	1/10W

E1

E2

REF.NO.	PART NO.	DESCRIPTION	REMARK
R382	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R383	1-216-653-11	METAL CHIP 1.2K 0.50% 1/10W	
R384	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R385	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R386	1-216-687-11	METAL CHIP 33K 0.50% 1/10W	
R387	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R388	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R389	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R390	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R391	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R393	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R394	1-216-109-00	METAL GLAZE 330K 5% 1/10W	
R395	1-216-071-00	METAL GLAZE 8.2K 5% 1/10W	
R396	1-216-105-00	METAL GLAZE 220K 5% 1/10W	
R397	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R398	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R399	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R1301	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1302	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R1303	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R1304	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R1305	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1306	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R1307	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1308	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1309	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1310	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R1311	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1312	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1313	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R1314	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1315	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1316	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R1317	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1318	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1319	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1320	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R1321	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R1322	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R1323	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R1324	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R1325	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1326	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1327	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R1328	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R1329	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R1330	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R1331	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R1332	1-216-093-00	METAL GLAZE 68K 5% 1/10W	
R1333	1-216-129-00	METAL GLAZE 2.2M 5% 1/10W	
R1334	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R1335	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R1336	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R1337	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R1338	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R1339	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R1340	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1342	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R1343	1-216-105-00	METAL GLAZE 220K 5% 1/10W	
R1344	1-216-091-00	METAL GLAZE 56K 5% 1/10W	
R1345	1-216-101-00	METAL GLAZE 150K 5% 1/10W	
R1346	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1347	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1348	1-216-049-00	METAL GLAZE 1K 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1349	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R1350	1-216-091-00	METAL GLAZE 56K 5% 1/10W	
R1351	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1352	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R1353	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R1354	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R1355	1-216-017-00	METAL GLAZE 47 5% 1/10W	
R1356	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R1357	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R1358	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R1362	1-216-105-00	METAL GLAZE 220K 5% 1/10W	
R1363	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1364	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R1373	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1374	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R1379	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R1380	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R1381	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R1382	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R1383	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R1384	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R1385	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R1386	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R1387	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R1388	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R1389	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R1390	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R1391	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R1392	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R1394	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R1395	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R1396	1-216-125-00	METAL GLAZE 1.5M 5% 1/10W	
R1399	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R5301	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R5302	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R5303	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R5304	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R5305	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
<CRYSTAL>			
X301	1-567-505-11	OSCILLATOR, CRYSTAL	

*A-1346-137-A E2 BOARD, COMPLETE			

<CAPACITOR>			
C2302	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C2303	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C2310	1-163-105-00	CERAMIC CHIP 33PF	5% 50V
C2314	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C2315	1-126-157-11	ELECT 10MF	20% 16V
C2316	1-126-157-11	ELECT 10MF	20% 16V
C2317	1-126-157-11	ELECT 10MF	20% 16V
C2318	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C2320	1-124-589-11	ELECT 47MF	20% 16V
C2321	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C2322	1-124-234-00	ELECT 22MF	20% 16V
C2323	1-124-234-00	ELECT 22MF	20% 16V
C2324	1-124-234-00	ELECT 22MF	20% 16V
C2325	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C2326	1-124-589-11	ELECT 47MF	20% 16V	Q2309	8-729-903-10	TRANSISTOR FMW1	
C2327	1-164-505-11	CERAMIC CHIP 2.2MF	10% 16V	Q2310	8-729-403-27	TRANSISTOR XN4401	
C2328	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q2311	8-729-903-10	TRANSISTOR FMW1	
C2329	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q2312	8-729-403-27	TRANSISTOR XN4401	
C2331	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q2313	8-729-903-10	TRANSISTOR FMW1	
C2332	1-124-234-00	ELECT 22MF	20% 16V	Q2314	8-729-403-27	TRANSISTOR XN4401	
C2333	1-124-234-00	ELECT 22MF	20% 16V	Q2315	8-729-903-10	TRANSISTOR FMW1	
C2334	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q2317	8-729-216-22	TRANSISTOR 2SA1162-G	
C2335	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q2318	8-729-216-22	TRANSISTOR 2SA1162-G	
C2336	1-126-163-11	ELECT 4.7MF	20% 16V	Q2319	8-729-216-22	TRANSISTOR 2SA1162-G	
C2337	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q2320	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2338	1-163-038-00	CERAMIC CHIP 0.1MF	25V	Q2321	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2341	1-135-217-21	TANTAL. CHIP 15MF	20% 6.3V	Q2322	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2345	1-164-505-11	CERAMIC CHIP 2.2MF	10% 16V	Q2324	8-729-216-22	TRANSISTOR 2SA1162-G	
C2346	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q2326	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2347	1-163-367-11	CERAMIC CHIP 39PF	5% 50V	Q2327	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2349	1-164-505-11	CERAMIC CHIP 2.2MF	10% 16V	Q2328	8-729-925-79	TRANSISTOR 1MX3	
C2350	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q2329	8-729-925-79	TRANSISTOR 1MX3	
C2351	1-164-505-11	CERAMIC CHIP 2.2MF	10% 16V	Q2330	8-729-903-10	TRANSISTOR FMW1	
C2352	1-164-505-11	CERAMIC CHIP 2.2MF	10% 16V	Q2336	8-729-925-79	TRANSISTOR 1MX3	
C2353	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q2337	8-729-925-79	TRANSISTOR 1MX3	
C2354	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q2339	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2357	1-126-301-11	ELECT 1MF	20% 50V	Q2340	8-729-422-27	TRANSISTOR 2SD601A-Q	
C2360	1-163-109-00	CERAMIC CHIP 47PF	5% 50V	Q2341	8-729-422-27	TRANSISTOR 2SD601A-Q	
<DIODE>				<RESISTOR>			
D2306	8-719-404-46	DIODE MA110		R2302	1-216-049-00	METAL GLAZE 1K 5%	1/10W
D2307	8-719-946-98	DIODE FMN1		R2303	1-216-049-00	METAL GLAZE 1K 5%	1/10W
D2308	8-719-946-98	DIODE FMN1		R2304	1-216-049-00	METAL GLAZE 1K 5%	1/10W
D2309	8-719-404-46	DIODE MA110		R2305	1-216-033-00	METAL GLAZE 220 5%	1/10W
D2312	8-719-404-46	DIODE MA110		R2306	1-216-045-00	METAL GLAZE 680 5%	1/10W
D2313	8-719-404-46	DIODE MA110		R2307	1-216-045-00	METAL GLAZE 680 5%	1/10W
D2314	8-713-300-57	DIODE 1T33		R2308	1-216-045-00	METAL GLAZE 680 5%	1/10W
D2317	8-719-404-46	DIODE MA110		R2309	1-216-041-00	METAL GLAZE 470 5%	1/10W
<CONNECTOR>				R2310	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W
E2-25	*1-564-521-11	PLUG, CONNECTOR 6P		R2311	1-216-025-00	METAL GLAZE 100 5%	1/10W
E2-26	*1-564-522-11	PLUG, CONNECTOR 7P		R2312	1-216-043-00	METAL GLAZE 560 5%	1/10W
E2-46	*1-564-518-11	PLUG, CONNECTOR 3P		R2313	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W
E2-002	1-573-965-21	PIN, CONNECTOR (PC BOARD) 50P		R2314	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
<IC>				R2315	1-216-081-00	METAL GLAZE 22K 5%	1/10W
IC2301	8-759-066-52	IC PCA8510T/012-T		R2317	1-216-041-00	METAL GLAZE 470 5%	1/10W
IC2303	8-759-925-75	IC SN74HC05ANS		R2318	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W
IC2304	8-752-037-15	IC CXA1387S		R2319	1-216-079-00	METAL GLAZE 18K 5%	1/10W
IC2306	8-759-011-65	IC MC74HC4053F		R2320	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
IC2307	8-752-058-68	IC CXA1315M		R2321	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W
<COIL>				R2322	1-216-049-00	METAL GLAZE 1K 5%	1/10W
L2304	1-408-414-00	INDUCTOR 27UH		R2323	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
<TRANSISTOR>				R2324	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q2301	8-729-903-10	TRANSISTOR FMW1		R2325	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q2303	8-729-403-27	TRANSISTOR XN4401		R2326	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
Q2304	8-729-925-79	TRANSISTOR 1MX3		R2327	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W
Q2305	8-729-903-10	TRANSISTOR FMW1		R2328	1-216-025-00	METAL GLAZE 100 5%	1/10W
Q2306	8-729-403-27	TRANSISTOR XN4401		R2329	1-216-025-00	METAL GLAZE 100 5%	1/10W
Q2307	8-729-403-27	TRANSISTOR XN4401		R2330	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
Q2308	8-729-403-27	TRANSISTOR XN4401		R2331	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W
				R2332	1-216-025-00	METAL GLAZE 100 5%	1/10W
				R2333	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
				R2334	1-216-295-00	METAL GLAZE 0 5%	1/10W
				R2335	1-216-295-00	METAL GLAZE 0 5%	1/10W
				R2336	1-216-295-00	METAL GLAZE 0 5%	1/10W
				R2337	1-216-033-00	METAL GLAZE 220 5%	1/10W
				R2338	1-216-081-00	METAL GLAZE 22K 5%	1/10W

E2

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R2340	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3314	1-216-689-11	METAL GLAZE	39K 5% 1/10W
R2341	1-216-041-00	METAL GLAZE	470 5% 1/10W	R3315	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R2342	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3316	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R2343	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3318	1-216-095-00	METAL GLAZE	82K 5% 1/10W
R2344	1-216-033-00	METAL GLAZE	220 5% 1/10W	R3319	1-216-095-00	METAL GLAZE	82K 5% 1/10W
R2345	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R3320	1-216-017-00	METAL GLAZE	47 5% 1/10W
R2346	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3321	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R2347	1-216-083-00	METAL GLAZE	27K 5% 1/10W	R3323	1-216-101-00	METAL GLAZE	150K 5% 1/10W
R2348	1-216-655-11	METAL CHIP	1.5K 0.50% 1/10W	R3324	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R2349	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3325	1-216-025-00	METAL GLAZE	100 5% 1/10W
R2350	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R3328	1-216-001-00	METAL GLAZE	10 5% 1/10W
R2351	1-216-033-00	METAL GLAZE	220 5% 1/10W	R3330	1-216-033-00	METAL GLAZE	220 5% 1/10W
R2352	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R3331	1-216-033-00	METAL GLAZE	220 5% 1/10W
R2353	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R3332	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R2354	1-216-210-00	METAL GLAZE	3.3K 5% 1/8W	R3333	1-216-657-11	METAL CHIP	1.8K 0.50% 1/10W
R2355	1-216-178-00	METAL GLAZE	150 5% 1/8W	R3334	1-216-661-11	METAL CHIP	2.7K 0.50% 1/10W
R2356	1-216-677-11	METAL CHIP	12K 0.50% 1/10W	R3335	1-216-025-00	METAL GLAZE	100 5% 1/10W
R2357	1-216-670-11	METAL CHIP	6.2K 0.50% 1/10W	R3336	1-216-683-11	METAL CHIP	22K 0.50% 1/10W
R2359	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3337	1-216-685-11	METAL CHIP	27K 0.50% 1/10W
R2360	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3339	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R2361	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3340	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R2362	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3341	1-216-677-11	METAL CHIP	12K 0.50% 1/10W
R2363	1-216-041-00	METAL GLAZE	470 5% 1/10W	R3342	1-216-670-11	METAL CHIP	6.2K 0.50% 1/10W
R2364	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3343	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R2365	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R3344	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R2366	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3347	1-216-687-11	METAL CHIP	33K 0.50% 1/10W
R2367	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3348	1-216-681-11	METAL CHIP	18K 0.50% 1/10W
R2368	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3349	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R2371	1-216-033-00	METAL GLAZE	220 5% 1/10W	R3350	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R2374	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R3351	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R2375	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3352	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R2376	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3353	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R2377	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3354	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R2378	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3356	1-216-655-11	METAL CHIP	1.5K 0.50% 1/10W
R2379	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3357	1-216-654-11	METAL CHIP	1.3K 0.50% 1/10W
R2380	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3358	1-216-659-11	METAL CHIP	2.2K 0.50% 1/10W
R2381	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3359	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W
R2382	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R3360	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R2384	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R3361	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R2385	1-216-075-00	METAL GLAZE	12K 5% 1/10W	R3362	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R2386	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3364	1-216-295-00	METAL GLAZE	0 5% 1/10W
R2387	1-216-025-00	METAL GLAZE	100 5% 1/10W	R3365	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R2388	1-216-017-00	METAL GLAZE	47 5% 1/10W	R3367	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R2389	1-216-206-00	METAL GLAZE	2.2K 5% 1/8W	R3368	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R2390	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3369	1-216-001-00	METAL GLAZE	10 5% 1/10W
R2392	1-216-206-00	METAL GLAZE	2.2K 5% 1/8W	R3370	1-216-001-00	METAL GLAZE	10 5% 1/10W
R2393	1-216-017-00	METAL GLAZE	47 5% 1/10W	R3371	1-216-001-00	METAL GLAZE	10 5% 1/10W
R2394	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3373	1-216-673-11	METAL CHIP	8.2K 0.50% 1/10W
R2395	1-216-001-00	METAL GLAZE	10 5% 1/10W	R3374	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R2396	1-216-206-00	METAL GLAZE	2.2K 5% 1/8W	R3375	1-216-658-11	METAL CHIP	2K 0.50% 1/10W
R2397	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3376	1-216-647-11	METAL CHIP	680 0.50% 1/10W
R2399	1-216-001-00	METAL GLAZE	10 5% 1/10W	R3377	1-216-647-11	METAL CHIP	680 0.50% 1/10W
R3301	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R3378	1-216-659-11	METAL CHIP	2.2K 0.50% 1/10W
R3302	1-216-001-00	METAL GLAZE	10 5% 1/10W	R3379	1-216-655-11	METAL CHIP	1.5K 0.50% 1/10W
R3303	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W	R3380	1-216-661-11	METAL CHIP	2.7K 0.50% 1/10W
R3304	1-216-091-00	METAL GLAZE	56K 5% 1/10W	R3381	1-216-025-00	METAL GLAZE	100 5% 1/10W
R3306	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R3382	1-216-295-00	METAL GLAZE	0 5% 1/10W
R3307	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R3392	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R3308	1-216-043-00	METAL GLAZE	560 5% 1/10W	R3401	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R3309	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R7312	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R3310	1-216-001-00	METAL GLAZE	10 5% 1/10W	R7313	1-216-047-00	METAL GLAZE	820 5% 1/10W
R3311	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R7314	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R3312	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
R3313	1-216-083-00	METAL GLAZE	27K 5% 1/10W				

E2

M

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<CRYSTAL>				<TRANSISTOR>			
X2301	1-577-071-11	VIBRATOR, CERAMIC		Q001	8-729-216-22	TRANSISTOR 2SA1162-G	
*****				Q009	8-729-422-27	TRANSISTOR 2SD601A-Q	
*A-1306-436-A M BOARD, COMPLETE				Q010	8-729-422-27	TRANSISTOR 2SD601A-Q	
*****				Q011	8-729-422-27	TRANSISTOR 2SD601A-Q	
				Q012	8-729-422-27	TRANSISTOR 2SD601A-Q	
<CAPACITOR>				Q013	8-729-216-22	TRANSISTOR 2SA1162-G	
C001	1-124-261-00	ELECT 10MF 20% 50V		Q014	8-729-422-27	TRANSISTOR 2SD601A-Q	
C002	1-163-125-00	CERAMIC CHIP 220PF 5% 50V		<RESISTOR>			
C003	1-136-161-00	FILM 0.047MF 5% 50V		R001	1-216-045-00	METAL GLAZE 680 5% 1/10W	
C004	1-126-301-11	ELECT 1MF 20% 50V		R002	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
C005	1-163-125-00	CERAMIC CHIP 220PF 5% 50V		R003	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
C014	1-124-910-11	ELECT 47MF 20% 50V		R004	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
C017	1-124-589-11	ELECT 47MF 20% 16V		R005	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
C018	1-163-141-00	CERAMIC CHIP 0.001MF 5% 50V		R006	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
C019	1-164-695-11	CERAMIC CHIP 0.0022MF 5% 50V		R007	1-216-027-00	METAL GLAZE 120 5% 1/10W	
C020	1-163-241-11	CERAMIC CHIP 39PF 5% 50V		R008	1-216-041-00	METAL GLAZE 470 5% 1/10W	
C021	1-163-239-11	CERAMIC CHIP 33PF 5% 50V		R009	1-216-027-00	METAL GLAZE 120 5% 1/10W	
C029	1-163-115-00	CERAMIC CHIP 82PF 5% 50V		R011	1-216-033-00	METAL GLAZE 220 5% 1/10W	
C030	1-163-115-00	CERAMIC CHIP 82PF 5% 50V		R012	1-216-033-00	METAL GLAZE 220 5% 1/10W	
C034	1-163-125-00	CERAMIC CHIP 220PF 5% 50V		R013	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
C035	1-163-125-00	CERAMIC CHIP 220PF 5% 50V		R014	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
C036	1-163-125-00	CERAMIC CHIP 220PF 5% 50V		R015	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
C041	1-163-117-00	CERAMIC CHIP 100PF 5% 50V		R016	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
C042	1-163-117-00	CERAMIC CHIP 100PF 5% 50V		R017	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
C045	1-163-125-00	CERAMIC CHIP 220PF 5% 50V		R018	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
C047	1-124-261-00	ELECT 10MF 20% 50V		R019	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
C048	1-124-261-00	ELECT 10MF 20% 50V		R033	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
C049	1-124-261-00	ELECT 10MF 20% 50V		R034	1-216-033-00	METAL GLAZE 220 5% 1/10W	
C055	1-163-809-11	CERAMIC CHIP 0.047MF 10% 25V		R035	1-216-033-00	METAL GLAZE 220 5% 1/10W	
C064	1-163-121-00	CERAMIC CHIP 150PF 5% 50V		R036	1-216-033-00	METAL GLAZE 220 5% 1/10W	
C065	1-124-257-00	ELECT 2.2MF 20% 50V		R037	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
<DIODE>				R038	1-216-033-00	METAL GLAZE 220 5% 1/10W	
D001	8-719-404-46	DIODE MA110		R039	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
D002	8-719-404-46	DIODE MA110		R040	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
D009	8-719-404-46	DIODE MA110		R041	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
D010	8-713-300-57	DIODE 1T33		R042	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
D011	8-719-404-46	DIODE MA110		R043	1-216-033-00	METAL GLAZE 220 5% 1/10W	
D012	8-719-404-46	DIODE MA110		R044	1-216-033-00	METAL GLAZE 220 5% 1/10W	
D014	8-719-404-46	DIODE MA110		R045	1-216-025-00	METAL GLAZE 100 5% 1/10W	
D015	8-719-404-46	DIODE MA110		R046	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
<IC>				R047	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
IC001	8-759-169-06	IC TMC73C247-10		R048	1-216-033-00	METAL GLAZE 220 5% 1/10W	
IC002	8-759-403-44	IC MN1280-S		R049	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
<COIL>				R050	1-216-295-00	METAL GLAZE 0 5% 1/10W	
L001	1-408-409-00	INDUCTOR 10UH		R051	1-216-033-00	METAL GLAZE 220 5% 1/10W	
L002	1-410-476-11	INDUCTOR 33UH		R052	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
<CONNECTOR>				R053	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
M-39	*1-564-521-11	PLUG, CONNECTOR 6P		R054	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
M-45	*1-564-523-11	PLUG, CONNECTOR 8P		R055	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
M-001	1-573-965-21	PIN, CONNECTOR (PC BOARD) 50P		R056	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
				R057	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
				R058	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
				R059	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
				R060	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
				R063	1-216-033-00	METAL GLAZE 220 5% 1/10W	
				R064	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
				R065	1-216-033-00	METAL GLAZE 220 5% 1/10W	
				R066	1-216-033-00	METAL GLAZE 220 5% 1/10W	
				R067	1-216-033-00	METAL GLAZE 220 5% 1/10W	
				R068	1-216-033-00	METAL GLAZE 220 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
D3004	8-719-404-46	DIODE MA110		R3014	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
D3009	8-719-404-46	DIODE MA110		R3015	1-216-049-00	METAL GLAZE 1K 5%	1/10W
<IC>				R3017	1-216-083-00	METAL GLAZE 27K 5%	1/10W
IC3001	8-759-046-25	IC TDA3769		R3018	1-216-097-00	METAL GLAZE 100K 5%	1/10W
IC3002	8-759-009-46	IC MC14528BF		R3019	1-216-077-00	METAL GLAZE 15K 5%	1/10W
IC3003	8-759-513-48	IC TDA2595/V9		R3020	1-216-099-00	METAL GLAZE 120K 5%	1/10W
IC3004	8-759-088-90	IC SDA9187X		R3021	1-216-075-00	METAL GLAZE 12K 5%	1/10W
IC3005	8-759-088-91	IC SDA9188X		R3023	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
IC3006	8-759-112-06	IC UPC78N05H		R3025	1-216-015-00	METAL GLAZE 39 5%	1/10W
IC3007	8-759-046-27	IC SDA9086-3		R3026	1-216-041-00	METAL GLAZE 470 5%	1/10W
IC3008	8-759-112-06	IC UPC78N05H		R3027	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
<COIL>				R3028	1-216-027-00	METAL GLAZE 120 5%	1/10W
L3001	1-410-476-11	INDUCTOR 33UH		R3030	1-216-073-00	METAL GLAZE 10K 5%	1/10W
L3002	1-408-424-00	INDUCTOR 180UH		R3031	1-216-047-00	METAL GLAZE 820 5%	1/10W
L3003	1-408-424-00	INDUCTOR 180UH		R3032	1-216-041-00	METAL GLAZE 470 5%	1/10W
L3004	1-410-470-11	INDUCTOR 10UH		R3033	1-216-295-00	METAL GLAZE 0 5%	1/10W
L3005	1-410-472-41	INDUCTOR 15UH		R3034	1-216-041-00	METAL GLAZE 470 5%	1/10W
L3006	1-412-788-41	INDUCTOR 10UH		R3035	1-216-045-00	METAL GLAZE 680 5%	1/10W
L3007	1-410-472-41	INDUCTOR 15UH		R3036	1-216-045-00	METAL GLAZE 680 5%	1/10W
L3008	1-410-472-41	INDUCTOR 15UH		R3037	1-216-083-00	METAL GLAZE 27K 5%	1/10W
L3009	1-410-472-41	INDUCTOR 15UH		R3038	1-216-049-00	METAL GLAZE 1K 5%	1/10W
L3010	1-410-466-41	INDUCTOR 4.7UH		R3039	1-216-073-00	METAL GLAZE 10K 5%	1/10W
L3011	1-410-470-11	INDUCTOR 10UH		R3040	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
L3012	1-410-676-31	INDUCTOR 150UH		R3041	1-216-073-00	METAL GLAZE 10K 5%	1/10W
L3013	1-412-911-11	INDUCTOR, FERRITE BEAD		R3042	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
L3014	1-412-911-11	INDUCTOR, FERRITE BEAD		R3043	1-216-099-00	METAL GLAZE 120K 5%	1/10W
L3015	1-412-911-11	INDUCTOR, FERRITE BEAD		R3044	1-216-089-00	METAL GLAZE 47K 5%	1/10W
L3100	1-412-799-41	INDUCTOR 82UH		R3045	1-216-295-00	METAL GLAZE 0 5%	1/10W
<TRANSISTOR>				R3050	1-216-033-00	METAL GLAZE 220 5%	1/10W
Q3003	8-729-216-22	TRANSISTOR 2SA1162-G		R3052	1-216-033-00	METAL GLAZE 220 5%	1/10W
Q3004	8-729-422-27	TRANSISTOR 2SD601A-Q		R3053	1-216-037-00	METAL GLAZE 330 5%	1/10W
Q3006	8-729-422-27	TRANSISTOR 2SD601A-Q		R3055	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W
Q3007	8-729-216-22	TRANSISTOR 2SA1162-G		R3056	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
Q3008	8-729-422-27	TRANSISTOR 2SD601A-Q		R3057	1-216-081-00	METAL GLAZE 22K 5%	1/10W
Q3009	8-729-216-22	TRANSISTOR 2SA1162-G		R3058	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q3010	8-729-422-27	TRANSISTOR 2SD601A-Q		R3059	1-216-079-00	METAL GLAZE 18K 5%	1/10W
Q3011	8-729-216-22	TRANSISTOR 2SA1162-G		R3060	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
Q3012	8-729-422-27	TRANSISTOR 2SD601A-Q		R3061	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q3013	8-729-422-27	TRANSISTOR 2SD601A-Q		R3062	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q3014	8-729-422-27	TRANSISTOR 2SD601A-Q		R3063	1-216-025-00	METAL GLAZE 100 5%	1/10W
Q3100	8-729-216-22	TRANSISTOR 2SA1162-G		R3064	1-216-295-00	METAL GLAZE 0 5%	1/10W
<RESISTOR>				R3065	1-216-073-00	METAL GLAZE 10K 5%	1/10W
JR3	1-216-295-00	METAL GLAZE 0 5%	1/10W	R3066	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
R3001	1-216-085-00	METAL GLAZE 33K 5%	1/10W	R3067	1-216-295-00	METAL GLAZE 0 5%	1/10W
R3002	1-216-089-00	METAL GLAZE 47K 5%	1/10W	R3069	1-216-689-11	METAL GLAZE 39K 5%	1/10W
R3003	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W	R3071	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R3004	1-216-091-00	METAL GLAZE 56K 5%	1/10W	R3073	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R3005	1-216-689-11	METAL GLAZE 39K 5%	1/10W	R3074	1-216-295-00	METAL GLAZE 0 5%	1/10W
R3006	1-216-097-00	METAL GLAZE 100K 5%	1/10W	R3075	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R3007	1-216-079-00	METAL GLAZE 18K 5%	1/10W	R3076	1-216-043-00	METAL GLAZE 560 5%	1/10W
R3008	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R3077	1-216-037-00	METAL GLAZE 330 5%	1/10W
R3009	1-216-041-00	METAL GLAZE 470 5%	1/10W	R3078	1-216-044-00	METAL GLAZE 620 5%	1/10W
R3010	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R3079	1-216-040-00	METAL GLAZE 430 5%	1/10W
R3011	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R3082	1-216-029-00	METAL GLAZE 150 5%	1/10W
R3012	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W	R3084	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R3013	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W	R3085	1-216-119-00	METAL GLAZE 820K 5%	1/10W
				R3086	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
				R3087	1-216-081-00	METAL GLAZE 22K 5%	1/10W
				R3088	1-216-089-00	METAL GLAZE 47K 5%	1/10W
				R3089	1-216-033-00	METAL GLAZE 220 5%	1/10W
				R3090	1-216-089-00	METAL GLAZE 47K 5%	1/10W
				R3091	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
				R3092	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W

P1

X2


REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R3098	1-216-296-00	METAL GLAZE 0 5%	1/8W	C2541	1-163-139-00	CERAMIC CHIP 820PF 5%	50V
R3099	1-216-296-00	METAL GLAZE 0 5%	1/8W	C2542	1-124-478-11	ELECT 100MF 20%	25V
R3100	1-216-296-00	METAL GLAZE 0 5%	1/8W	C2543	1-124-252-00	ELECT 0.33MF 20%	50V
R3101	1-216-051-00	METAL GLAZE 1.2K 5%	1/10W	C2544	1-164-161-11	CERAMIC CHIP 0.0022MF 10%	50V
R3102	1-216-047-00	METAL GLAZE 820 5%	1/10W	C2545	1-126-301-11	ELECT 1MF 20%	50V
R3103	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W	C2546	1-126-163-11	ELECT 4.7MF 20%	50V
R3104	1-216-049-00	METAL GLAZE 1K 5%	1/10W	C2547	1-126-163-11	ELECT 4.7MF 20%	25V
<VARIABLE RESISTOR>				C2548	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V
RV3001	1-241-630-11	RES, ADJ, CARBON 10K		C2549	1-126-163-11	ELECT 4.7MF 20%	50V
RV3002	1-238-019-11	RES, ADJ, CARBON 47K		C2550	1-126-163-11	ELECT 4.7MF 20%	25V
RV3003	1-241-630-11	RES, ADJ, CARBON 10K		C2551	1-126-301-11	ELECT 1MF 20%	50V
<CRYSTAL>				C2552	1-126-163-11	ELECT 4.7MF 20%	50V
X3001	1-567-505-11	OSCILLATOR, CRYSTAL		C2553	1-126-301-11	ELECT 1MF 20%	50V
*****				C2554	1-124-234-00	ELECT 22MF 20%	16V
*A-1394-444-A	X2 BOARD, COMPLETE	*****		C2555	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
<CAPACITOR>				C2556	1-124-257-00	ELECT 2.2MF 20%	50V
C2501	1-163-020-00	CERAMIC CHIP 0.0082MF 10%	50V	C2557	1-124-234-00	ELECT 22MF 20%	16V
C2502	1-163-020-00	CERAMIC CHIP 0.0082MF 10%	50V	C2558	1-126-301-11	ELECT 1MF 20%	50V
C2503	1-163-001-11	CERAMIC CHIP 220PF 10%	50V	C2559	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C2504	1-126-163-11	ELECT 4.7MF 20%	50V	C2560	1-164-161-11	CERAMIC CHIP 0.0022MF 10%	50V
C2505	1-163-020-00	CERAMIC CHIP 0.0082MF 10%	50V	C2561	1-126-301-11	ELECT 1MF 20%	50V
C2506	1-163-020-00	CERAMIC CHIP 0.0082MF 10%	50V	C2562	1-163-263-11	CERAMIC CHIP 330PF 5%	50V
C2507	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V	C2563	1-163-257-11	CERAMIC CHIP 180PF 5%	50V
C2508	1-163-020-00	CERAMIC CHIP 0.0082MF 10%	50V	C2564	1-126-301-11	ELECT 1MF 20%	50V
C2509	1-163-020-00	CERAMIC CHIP 0.0082MF 10%	50V	C2565	1-126-163-11	ELECT 4.7MF 20%	50V
C2510	1-163-989-11	CERAMIC CHIP 0.033MF 10%	25V	C2566	1-126-163-11	ELECT 4.7MF 20%	50V
C2511	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V	C2567	1-126-163-11	ELECT 4.7MF 20%	50V
C2512	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V	C2568	1-163-263-11	CERAMIC CHIP 330PF 5%	50V
C2513	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V	C2569	1-163-257-11	CERAMIC CHIP 180PF 5%	50V
C2514	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V	C2570	1-124-234-00	ELECT 22MF 20%	16V
C2515	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V	C2571	1-126-301-11	ELECT 1MF 20%	50V
C2516	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V	C2572	1-126-163-11	ELECT 4.7MF 20%	50V
C2517	1-126-157-11	ELECT 10MF 20%	16V	C2573	1-124-234-00	ELECT 22MF 20%	16V
C2518	1-126-163-11	ELECT 4.7MF 20%	50V	C2574	1-126-301-11	ELECT 1MF 20%	50V
C2519	1-126-301-11	ELECT 1MF 20%	50V	C2575	1-126-301-11	ELECT 1MF 20%	50V
C2520	1-126-163-11	ELECT 4.7MF 20%	50V	C2576	1-126-301-11	ELECT 1MF 20%	50V
C2521	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V	C2577	1-126-163-11	ELECT 4.7MF 20%	50V
C2522	1-124-252-00	ELECT 0.33MF 20%	50V	C2578	1-126-163-11	ELECT 4.7MF 20%	50V
C2523	1-126-163-11	ELECT 4.7MF 20%	50V	C2579	1-126-103-11	ELECT 470MF 20%	16V
C2524	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V	C2580	1-124-478-11	ELECT 100MF 20%	25V
C2525	1-126-163-11	ELECT 4.7MF 20%	50V	C2581	1-163-109-00	CERAMIC CHIP 47PF 5%	50V
C2526	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V	C2582	1-124-477-11	ELECT 47MF 20%	25V
C2527	1-126-157-11	ELECT 10MF 20%	16V	C2583	1-126-163-11	ELECT 4.7MF 20%	50V
C2528	1-124-465-00	ELECT 0.47MF 20%	50V	C2584	1-163-109-00	CERAMIC CHIP 47PF 5%	50V
C2529	1-163-989-11	CERAMIC CHIP 0.033MF 10%	25V	C2585	1-126-163-11	ELECT 4.7MF 20%	50V
C2530	1-164-182-11	CERAMIC CHIP 0.0033MF 10%	50V	C2586	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C2531	1-126-301-11	ELECT 1MF 20%	50V	C2587	1-126-163-11	ELECT 4.7MF 20%	50V
C2532	1-126-301-11	ELECT 1MF 20%	50V	C2588	1-126-163-11	ELECT 4.7MF 20%	50V
C2533	1-124-261-00	ELECT 10MF 20%	50V	C2589	1-126-163-11	ELECT 4.7MF 20%	50V
C2534	1-163-257-11	CERAMIC CHIP 180PF 5%	50V	C2590	1-126-163-11	ELECT 4.7MF 20%	50V
C2535	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V	C2591	1-124-478-11	ELECT 100MF 20%	25V
C2536	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V	<DIODE>			
C2537	1-126-163-11	ELECT 4.7MF 20%	50V	D2501	8-719-104-34	DIODE 1S2836	
C2538	1-126-163-11	ELECT 4.7MF 20%	50V	D2502	8-719-106-88	DIODE RD15M-B1	
C2539	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V	D2503	8-719-106-88	DIODE RD15M-B1	
C2540	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V	D2504	8-719-106-88	DIODE RD15M-B1	
<IC>				<IC>			
				IC2501	8-759-031-31	IC MC33174M	
				IC2502	8-752-050-75	IC CXA1373Q	

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R2617	1-216-125-00	METAL GLAZE 1.5M 5%	1/10W	C481	1-124-768-11	ELECT 4.7MF	20% 50V
R2618	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W	C482	1-126-163-11	ELECT 4.7MF	20% 50V
R2619	1-216-049-00	METAL GLAZE 1K 5%	1/10W	C483	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
*****				C484	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
*A-1394-443-A Y2 BOARD, COMPLETE				C485	1-163-038-00	CERAMIC CHIP 0.1MF	25V
*****				C487	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
<CAPACITOR>				C488	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C401	1-124-234-00	ELECT 22MF	20% 16V	<DIODE>			
C424	1-126-301-11	ELECT 1MF	20% 50V	D405	8-719-107-13	DIODE RD18M-B1	
C425	1-126-301-11	ELECT 1MF	20% 50V	D406	8-719-107-13	DIODE RD18M-B1	
C426	1-126-301-11	ELECT 1MF	20% 50V	D407	8-719-107-13	DIODE RD18M-B1	
C427	1-124-465-00	ELECT 0.47MF	20% 50V	D408	8-719-105-83	DIODE RD5.1M-B3	
C428	1-126-163-11	ELECT 4.7MF	20% 50V	D409	8-719-981-50	DIODE RB100A	
C429	1-124-478-11	ELECT 100MF	20% 25V	D410	8-719-981-50	DIODE RB100A	
C430	1-124-261-00	ELECT 10MF	20% 50V	D413	8-719-158-19	DIODE RD6.2SB	
C431	1-126-301-11	ELECT 1MF	20% 50V	D414	8-719-158-55	DIODE RD15SB	
C432	1-126-301-11	ELECT 1MF	20% 50V	D415	8-719-158-55	DIODE RD15SB	
C433	1-131-347-00	TANTALUM 1MF	20% 16V	<IC>			
C434	1-126-301-11	ELECT 1MF	20% 50V	IC403	8-759-996-43	IC RC4558PS	
C435	1-130-309-00	FILM 0.033MF	5% 100V	IC404	8-759-067-24	IC 24C04A1/P	
C436	1-126-301-11	ELECT 1MF	20% 50V	IC406	8-752-037-24	IC CXA1264AS	
C437	1-130-487-00	MYLAR 0.022MF	5% 50V	IC407	8-759-245-75	IC TA8184P	
C438	1-126-301-11	ELECT 1MF	20% 50V	IC408	8-752-057-18	IC CXA1315P	
C439	1-124-034-51	ELECT 33MF	20% 16V	<TRANSISTOR>			
C440	1-126-301-11	ELECT 1MF	20% 50V	Q404	8-729-216-22	TRANSISTOR 2SA1162-G	
C441	1-126-301-11	ELECT 1MF	20% 50V	Q405	8-729-216-22	TRANSISTOR 2SA1162-G	
C442	1-124-261-00	ELECT 10MF	20% 50V	Q409	8-729-422-27	TRANSISTOR 2SD601A-Q	
C443	1-124-589-11	ELECT 47MF	20% 16V	Q410	8-729-422-27	TRANSISTOR 2SD601A-Q	
C446	1-124-234-00	ELECT 22MF	20% 16V	<RESISTOR>			
C447	1-126-301-11	ELECT 1MF	20% 50V	R447	1-216-033-00	METAL GLAZE 220 5%	1/10W
C448	1-136-170-00	FILM 0.27MF	5% 50V	R453	1-216-033-00	METAL GLAZE 220 5%	1/10W
C449	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	R464	1-216-081-00	METAL GLAZE 22K 5%	1/10W
C450	1-130-475-00	MYLAR 0.0022MF	5% 50V	R465	1-216-081-00	METAL GLAZE 22K 5%	1/10W
C451	1-124-261-00	ELECT 10MF	20% 50V	R466	1-216-025-00	METAL GLAZE 100 5%	1/10W
C452	1-124-261-00	ELECT 10MF	20% 50V	R467	1-216-033-00	METAL GLAZE 220 5%	1/10W
C453	1-130-475-00	MYLAR 0.0022MF	5% 50V	R468	1-216-033-00	METAL GLAZE 220 5%	1/10W
C454	1-131-368-00	TANTALUM 3.3MF	10% 16V	R469	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W
C455	1-131-347-00	TANTALUM 1MF	20% 16V	R470	1-216-033-00	METAL GLAZE 220 5%	1/10W
C456	1-136-171-00	FILM 0.33MF	5% 50V	R471	1-216-033-00	METAL GLAZE 220 5%	1/10W
C457	1-136-175-00	FILM 0.68MF	5% 50V	R472	1-216-686-11	METAL CHIP 30K 0.50%	1/10W
C458	1-126-101-11	ELECT 100MF	20% 16V	R473	1-216-295-00	METAL GLAZE 0 5%	1/10W
C459	1-126-101-11	ELECT 100MF	20% 16V	R474	1-216-295-00	METAL GLAZE 0 5%	1/10W
C460	1-126-101-11	ELECT 100MF	20% 16V	R475	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W
C461	1-124-499-11	ELECT 1MF	20% 50V	R476	1-216-669-11	METAL CHIP 5.6K 0.50%	1/10W
C462	1-124-499-11	ELECT 1MF	20% 50V	R477	1-216-675-11	METAL CHIP 10K 0.50%	1/10W
C465	1-130-485-00	MYLAR 0.015MF	5% 50V	R478	1-216-089-00	METAL GLAZE 47K 5%	1/10W
C466	1-130-485-00	MYLAR 0.015MF	5% 50V	R479	1-216-669-11	METAL CHIP 5.6K 0.50%	1/10W
C467	1-136-169-00	FILM 0.22MF	5% 50V	R480	1-216-675-11	METAL CHIP 10K 0.50%	1/10W
C468	1-136-169-00	FILM 0.22MF	5% 50V	R481	1-216-089-00	METAL GLAZE 47K 5%	1/10W
C469	1-126-157-11	ELECT 10MF	20% 16V	R482	1-216-089-00	METAL GLAZE 47K 5%	1/10W
C470	1-126-157-11	ELECT 10MF	20% 16V	R483	1-216-089-00	METAL GLAZE 47K 5%	1/10W
C471	1-124-589-11	ELECT 47MF	20% 16V	R485	1-216-073-00	METAL GLAZE 10K 5%	1/10W
C472	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	R486	1-216-073-00	METAL GLAZE 10K 5%	1/10W
C473	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	R488	1-216-295-00	METAL GLAZE 0 5%	1/10W
C474	1-124-234-00	ELECT 22MF	20% 16V	R494	1-216-025-00	METAL GLAZE 100 5%	1/10W
C475	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	R495	1-216-025-00	METAL GLAZE 100 5%	1/10W
C476	1-124-234-00	ELECT 22MF	20% 16V				
C477	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V				
C478	1-124-478-11	ELECT 100MF	20% 25V				
C479	1-126-163-11	ELECT 4.7MF	20% 50V				
C480	1-124-768-11	ELECT 4.7MF	20% 50V				

Les composants identifiés par une trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifique.

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Les composants identifiés par
une trame et une marque Δ
sont critiques pour la sécurité.
Ne les remplacer que par une
pièce portant le numéro spécifique

The components identified by
shading and mark Δ are critical
for safety
Replace only with part number
specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
D632	8-719-511-40	DIODE 51VB40	
D633	8-719-505-60	DIODE 55VB60	
D634	8-719-911-19	DIODE 1SS119	
D636	8-719-109-85	DIODE RD5.1ESB2	
D638	8-719-911-19	DIODE 1SS119	
D640	8-719-510-09	DIODE D1CSC5K	
D650	8-719-160-81	DIODE RD27FB2	
<FUSE>			
F601	1-532-748-11	FUSE, GLASS TUBE 6.3A/125V	
	1-533-223-11	CLIP, FUSE; F601	
<FERRITE BEAD>			
FB602	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB604	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB606	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB607	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB608	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB612	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB622	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
FB630	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
FB631	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH	
<CONNECTOR>			
G-1	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
G-2	*1-564-512-11	PLUG, CONNECTOR 9P	
G-3	*1-564-507-11	PLUG, CONNECTOR 4P	
G-4	*1-564-511-51	PLUG, CONNECTOR 8P	
G-5	*1-564-508-11	PLUG, CONNECTOR 5P	
G-7	*1-564-507-11	PLUG, CONNECTOR 4P	
G-8	*1-580-843-11	PIN, CONNECTOR (POWER)	
G-9	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
G-10	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
G-11	*1-564-511-71	PLUG, CONNECTOR 8P	
G-12	*1-564-505-11	PLUG, CONNECTOR 2P	
<IC>			
IC601	8-749-921-89	IC 58115N	
IC602	8-759-231-58	IC TA7812S	
	4-382-854-11	SCREW (M3X10), P, SW (+); IC602	
<JUMPER>			
JW76	1-408-421-00	INDUCTOR 100UH	
<COIL>			
L602	1-459-862-11	COIL, CHOKE 90UH	
L604	1-408-404-00	INDUCTOR 3.9UH	
L605	1-412-526-11	INDUCTOR 12UH	
L607	1-408-404-00	INDUCTOR 3.9UH	
L611	1-412-546-41	INDUCTOR 560UH	
L612	1-412-540-31	INDUCTOR 180UH	
L613	1-412-522-41	INDUCTOR 5.6UH	
<TRANSISTOR>			
Q603	8-729-011-15	TRANSISTOR 2SC4582NP	
	4-382-854-11	SCREW (M3X10), P, SW (+); Q603	
Q604	8-729-119-80	TRANSISTOR 2SC2688-LK	

REF.NO.	PART NO.	DESCRIPTION	REMARK
	3-701-754-00	PLATE, INSULATING; Q604	
	4-382-854-11	SCREW (M3X10), P, SW (+); Q604	
Q607	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q608	8-729-326-11	TRANSISTOR 2SC2611	
Q609	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q610	8-729-820-82	TRANSISTOR 2SA1208-S	
Q611	8-729-820-82	TRANSISTOR 2SA1208-S	
Q612	8-729-386-12	TRANSISTOR 2SB861-C	
	4-382-854-11	SCREW (M3X10), P, SW (+); Q612	
Q613	8-729-209-15	TRANSISTOR 2SD2012	
	4-382-854-11	SCREW (M3X10), P, SW (+); Q613	
Q614	8-729-011-15	TRANSISTOR 2SC4582NP	
	4-382-854-11	SCREW (M3X10), P, SW (+); Q614	
Q615	8-729-820-82	TRANSISTOR 2SA1208-S	
Q616	8-729-208-39	TRANSISTOR 2SA1306A-Y	
Q618	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q620	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q621	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q623	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q629	8-729-378-84	TRANSISTOR 2SD788-5	
Q630	8-729-255-12	TRANSISTOR 2SC2551-0	
<RESISTOR>			
R604	1-202-933-11	FUSIBLE 0.1 10% 1/2W F	
R605	1-249-428-11	CARBON 8.2K 5% 1/4W	
R606	1-214-919-00	METAL 180K 1% 1/2W	
R609	1-249-434-11	CARBON 27K 5% 1/4W F	
R610	1-215-469-00	METAL 100K 1% 1/4W	
R611	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R612	1-202-883-11	SOLID 680K 20% 1/2W	
R613	*1-215-388-91	METAL OXIDE 0.56 5% 3W F	
R614	1-249-418-11	CARBON 1.2K 5% 1/4W	
R615	1-215-438-00	METAL 5.1K 1% 1/4W	
R616	1-215-436-00	METAL 4.3K 1% 1/4W	
R617	*1-215-358-91	METAL OXIDE 3.9 5% 3W F	
R618	1-249-418-11	CARBON 1.2K 5% 1/4W	
R619	*1-215-444-91	METAL OXIDE 82K 5% 1W F	
R620	1-249-418-11	CARBON 1.2K 5% 1/4W F	
R621	1-247-691-11	CARBON 18 5% 1/4W F	
R622	1-249-424-11	CARBON 3.9K 5% 1/4W F	
R623	1-249-417-11	CARBON 1K 5% 1/4W	
R624	1-214-780-00	METAL 130K 1% 1/4W	
R625	*1-215-388-91	METAL OXIDE 0.56 5% 3W F	
R626	*1-215-356-91	METAL OXIDE 3.9 5% 1W F	
R627	1-202-883-11	SOLID 680K 20% 1/2W	
R628	1-249-410-11	CARBON 270 5% 1/4W F	
R629	*1-211-249-11	WIREWOUND 1 10% 3W F	
R631	1-249-417-11	CARBON 1K 5% 1/4W F	
R632	1-214-913-00	METAL 100K 1% 1/2W	
R633	1-249-429-11	CARBON 10K 5% 1/4W	
R634	1-249-441-11	CARBON 100K 5% 1/4W	
R635	*1-215-337-91	METAL OXIDE 6.8K 5% 2W F	
R636	1-260-065-11	CARBON 1.2 5% 1/2W	
R638	1-249-405-11	CARBON 100 5% 1/4W F	
R639	1-249-405-11	CARBON 100 5% 1/4W F	
R640	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R641	1-249-429-11	CARBON 10K 5% 1/4W	
R642	1-215-421-00	METAL 1K 1% 1/4W	
R643	1-260-123-11	CARBON 100K 5% 1/2W	
R644	1-249-415-11	CARBON 680 5% 1/4W	
R645	1-249-417-11	CARBON 1K 5% 1/4W	
R649	1-249-424-11	CARBON 3.9K 5% 1/4W	
R650	1-249-377-11	CARBON 0.47 5% 1/4W F	

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Replace only with part number specified.

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Ne les remplacer que par une pièce portant le numéro spécifié.

RP-46V15/46V16/61V15
RM-Y115

G

CR

REF.NO.	PART NO.	DESCRIPTION	REMARK
R651	1-215-429-00	METAL 2.2K 1% 1/4W	
Δ R652	Δ 1-215-429-00	METAL 2.2K 1% 1/4W	
R654	1-215-429-00	METAL 2.2K 1% 1/4W	
R655	1-249-426-11	CARBON 5.6K 5% 1/4W	
R656	1-215-454-00	METAL 24K 1% 1/4W	
R657	Δ 1-216-386-91	METAL OXIDE 0.56 5% 3W F	
R660	1-249-415-11	CARBON 470 5% 1/4W	
R661	Δ 1-202-884-91	SOLID 820K 20% 1/2W	
R662	Δ 1-205-900-11	WIREWOUND 1.2 5% 15W	
R663	Δ 1-215-904-91	METAL OXIDE 100K 5% 2W F	
R666	1-249-377-11	CARBON 0.47 5% 1/4W F	
R667	Δ 1-202-888-91	SOLID 2.2M 20% 1/2W	
R668	Δ 1-215-904-91	METAL OXIDE 100K 5% 2W F	
R669	1-249-377-11	CARBON 0.47 5% 1/4W F	
R675	1-249-377-11	CARBON 0.47 5% 1/4W F	
R687	1-249-417-11	CARBON 1K 5% 1/4W F	
R689	1-247-742-11	CARBON 180 5% 1/2W F	
R691	1-249-421-11	CARBON 2.2K 5% 1/4W	
R694	1-249-421-11	CARBON 2.2K 5% 1/4W	
R697	1-249-382-11	CARBON 1.2 5% 1/4W F	
R698	Δ 1-216-386-91	METAL OXIDE 0.56 5% 3W F	
<RELAY>			
R7601A	1-515-805-11	RELAY, POWER	
R7602A	1-515-805-11	RELAY, POWER	
<TRANSFORMER>			
T601	Δ 1-450-791-12	TRANSFORMER, POWER ISOLATION	
T603	Δ 1-424-020-11	PT	
T604	Δ 1-450-149-11	TRANSFORMER, HEATER	
T605	Δ 1-424-023-12	TRANSFORMER, LINE FILTER	
T606	Δ 1-421-372-21	TRANSFORMER, FERRITE (LFT)	
T608	Δ 1-423-665-11	TRANSFORMER, POWER	
<VARISTOR>			
V6601A	1-809-786-11	VARISTOR	

*A-1331-259-A CR BOARD, COMPLETE			

<CAPACITOR>			
C701	1-162-115-00	CERAMIC 330PF 10% 2KV	
C702	1-123-948-00	ELECT 22MF 20% 250V	
C703	1-102-050-00	CERAMIC 0.01MF 500V	
C704	1-162-115-00	CERAMIC 330PF 10% 2KV	
C705	1-130-479-00	MYLAR 0.0047MF 5% 50V	
C706	1-101-006-00	CERAMIC 0.047MF 50V	
C707	1-101-006-00	CERAMIC 0.047MF 50V	
C709	1-124-120-11	ELECT 220MF 20% 16V	
C710	1-124-120-11	ELECT 220MF 20% 16V	
C711	1-102-114-00	CERAMIC 470PF 10% 50V	
<CONNECTOR>			
CR1	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
CR3	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
CR4	*1-564-511-11	PLUG, CONNECTOR 8P	
CR15	*1-564-508-11	PLUG, CONNECTOR 5P	

REF.NO.	PART NO.	DESCRIPTION	REMARK
<PICTURE TUBE SOCKET>			
EXT701A	251-836-11	SOCKET, PICTURE TUBE	
<DIODE>			
D701	8-719-911-19	DIODE 1SS119	
D702	8-719-911-19	DIODE 1SS119	
D703	8-719-911-19	DIODE 1SS119	
D704	8-719-911-19	DIODE 1SS119	
D705	8-719-911-19	DIODE 1SS119	
D706	8-719-911-19	DIODE 1SS119	
D707	8-719-110-36	DIODE RD13ESB2	
<COIL>			
L701	1-408-429-00	INDUCTOR 470UH	
L702	1-408-159-00	COIL, SPOOK CHOKE 3.3UH	
L703	1-408-159-00	COIL, SPOOK CHOKE 3.3UH	
L704	1-408-413-00	INDUCTOR 22UH	
<NEON LAMP>			
NL701	1-519-108-XX	LAMP, NEON	
NL702	1-519-108-XX	LAMP, NEON	
<TRANSISTOR>			
Q701	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q703	8-729-119-80	TRANSISTOR 2SC2688-LK	
	4-373-933-01	SHEET (TRANSISTOR), BN; Q703	
	4-382-854-11	SCREW (M3X10), P, SW (+); Q703	
Q704	8-729-255-12	TRANSISTOR 2SC2551-0	
Q705	8-729-200-17	TRANSISTOR 2SA1091-0	
Q706	8-729-200-17	TRANSISTOR 2SA1091-0	
<RESISTOR>			
R701	1-202-847-00	SOLID 560K 20% 1/2W	
R702	1-202-814-11	SOLID 33K 20% 1/2W	
R703	1-202-818-00	SOLID 1K 20% 1/2W	
R704	1-202-842-11	SOLID 220K 20% 1/2W	
R705	1-202-828-11	SOLID 6.8K 20% 1/2W	
R706	1-202-561-00	SOLID 330 20% 1/2W	
R707	Δ 1-216-310-51	METAL OXIDE 8.2K 5% 5W F	
R708	1-249-405-11	CARBON 100 5% 1/4W F	
R709	1-249-405-11	CARBON 100 5% 1/4W F	
R710	Δ 1-215-927-91	METAL OXIDE 47K 5% 3W F	
R711	1-249-405-11	CARBON 100 5% 1/4W F	
R712	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R714	1-249-401-11	CARBON 47 5% 1/4W	
R716	1-249-405-11	CARBON 100 5% 1/4W	
R717	1-249-403-11	CARBON 68 5% 1/4W	
R718	1-249-412-11	CARBON 390 5% 1/4W	
R719	1-249-410-11	CARBON 270 5% 1/4W	
R720	1-249-405-11	CARBON 100 5% 1/4W	
R721	1-249-409-11	CARBON 220 5% 1/4W	
R722	1-215-423-00	METAL 1.2K 1% 1/4W	
R723	1-249-410-11	CARBON 270 5% 1/4W	
R724	1-215-429-00	METAL 2.2K 1% 1/4W	
<SPARK GAP>			

- The components identified by Δ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

CR

CG

CB

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 shading and mark Δ are critical
 for safety
 Replace only with part number
 specified.

REF.NO. PART NO. DESCRIPTION REMARK

SG701 1-519-422-11 GAP, SPARK
 SG702 1-519-422-11 GAP, SPARK

*A-1331-260-A CG BOARD, COMPLETE

<CAPACITOR>

C731	1-162-115-00	CERAMIC	330PF	10%	2KV
C732	1-123-948-00	ELECT	22MF	20%	250V
C733	1-102-050-00	CERAMIC	0.01MF		500V
C734	1-162-115-00	CERAMIC	330PF	10%	2KV
C735	1-130-479-00	MYLAR	0.0047MF	5%	50V
C736	1-101-006-00	CERAMIC	0.047MF		50V
C737	1-101-006-00	CERAMIC	0.047MF		50V
C739	1-124-120-11	ELECT	220MF	20%	16V
C740	1-124-120-11	ELECT	220MF	20%	16V
C741	1-102-114-00	CERAMIC	470PF	10%	50V

<CONNECTOR>

CG1 *1-508-784-00 PIN, CONNECTOR (5MM PITCH) 1P
 CG3 *1-508-765-00 PIN, CONNECTOR (5MM PITCH) 3P
 CG16 *1-564-508-11 PLUG, CONNECTOR 5P

<PICTURE TUBE SOCKET>

~~CR77311 251-024-11 SOCKET, PICTURE TUBE~~

<DIODE>

D731	8-719-911-19	DIODE 1SS119
D732	8-719-911-19	DIODE 1SS119
D733	8-719-911-19	DIODE 1SS119
D734	8-719-911-19	DIODE 1SS119
D735	8-719-911-19	DIODE 1SS119
D736	8-719-911-19	DIODE 1SS119
D737	8-719-911-19	DIODE 1SS119

<COIL>

L731	1-408-429-00	INDUCTOR	470UH
L732	1-408-159-00	COIL, SPOOK CHOKE	3.3UH
L733	1-408-159-00	COIL, SPOOK CHOKE	3.3UH
L734	1-408-413-00	INDUCTOR	22UH

<NEON LAMP>

NL731 1-519-108-XX LAMP, NEON
 NL732 1-519-108-XX LAMP, NEON

<TRANSISTOR>

Q731	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q732	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q733	8-729-119-80	TRANSISTOR 2SC2688-LK
	4-373-933-01	SHEET (TRANSISTOR), BN; Q733
	4-382-854-11	SCREW (M3X10), P, SW (+); Q733
Q734	8-729-255-12	TRANSISTOR 2SC2551-0
Q735	8-729-200-17	TRANSISTOR 2SA1091-0
Q736	8-729-200-17	TRANSISTOR 2SA1091-0

REF.NO. PART NO. DESCRIPTION REMARK

<RESISTOR>

R731	1-202-847-00	SOLID	560K	20%	1/2W
R732	1-202-814-11	SOLID	33K	20%	1/2W
R733	1-202-818-00	SOLID	1K	20%	1/2W
R734	1-202-842-11	SOLID	220K	20%	1/2W
R735	1-202-828-11	SOLID	6.8K	20%	1/2W

R736	1-202-561-00	SOLID	330	20%	1/2W
R737	1-216-219-51	METAL OXIDE	8.2K	5%	3W
R738	1-249-405-11	CARBON	100	5%	1/4W
R739	1-249-405-11	CARBON	100	5%	1/4W
R740	1-215-927-91	METAL OXIDE	47K	5%	3W

R741	1-249-405-11	CARBON	100	5%	1/4W
R742	1-249-421-11	CARBON	2.2K	5%	1/4W
R744	1-249-401-11	CARBON	47	5%	1/4W
R745	1-215-455-00	METAL	27K	1%	1/4W
R746	1-249-405-11	CARBON	100	5%	1/4W

R747	1-249-403-11	CARBON	68	5%	1/4W
R748	1-249-412-11	CARBON	390	5%	1/4W
R749	1-249-410-11	CARBON	270	5%	1/4W
R750	1-249-405-11	CARBON	100	5%	1/4W
R751	1-249-409-11	CARBON	220	5%	1/4W

R752	1-215-423-00	METAL	1.2K	1%	1/4W
R754	1-215-429-00	METAL	2.2K	1%	1/4W

<SPARK GAP>

SG731 1-519-422-11 GAP, SPARK
 SG732 1-519-422-11 GAP, SPARK

*A-1331-261-A CB BOARD, COMPLETE

<CAPACITOR>

C761	1-162-115-00	CERAMIC	330PF	10%	2KV
C762	1-123-948-00	ELECT	22MF	20%	250V
C763	1-102-050-00	CERAMIC	0.01MF		500V
C764	1-162-115-00	CERAMIC	330PF	10%	2KV
C765	1-130-479-00	MYLAR	0.0047MF	5%	50V

C766	1-101-006-00	CERAMIC	0.047MF		50V
C767	1-101-006-00	CERAMIC	0.047MF		50V
C769	1-124-120-11	ELECT	220MF	20%	16V
C770	1-124-120-11	ELECT	220MF	20%	16V
C771	1-102-114-00	CERAMIC	470PF	10%	50V

<CONNECTOR>

CB1 *1-508-784-00 PIN, CONNECTOR (5MM PITCH) 1P
 CB3 *1-508-765-00 PIN, CONNECTOR (5MM PITCH) 3P
 CB4 *1-564-511-11 PLUG, CONNECTOR 8P
 CB5 *1-564-511-11 PLUG, CONNECTOR 8P
 CB17 *1-564-508-11 PLUG, CONNECTOR 5P

<PICTURE TUBE SOCKET>

~~CR77611 251-026-11 SOCKET, PICTURE TUBE~~

<DIODE>

D761	8-719-911-19	DIODE 1SS119
D762	8-719-911-19	DIODE 1SS119
D763	8-719-911-19	DIODE 1SS119
D764	8-719-911-19	DIODE 1SS119

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KP-46V15/46V16
KP-53V15/53V16/61V15
RM-Y115

CB

V

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
D765	8-719-911-19	DIODE 1SS119					
D766	8-719-911-19	DIODE 1SS119					
D768	8-719-911-19	DIODE 1SS119					
D769	8-719-109-81	DIODE RD4.7ESB2					
		<COIL>				<CAPACITOR>	
L761	1-408-429-00	INDUCTOR 470UH		C1501	1-102-129-00	CERAMIC 0.01MF	10% 50V
L762	1-408-159-00	COIL, SPOOK CHOKE 3.3UH		C1502	1-126-101-11	ELECT 100MF	20% 16V
L763	1-408-159-00	COIL, SPOOK CHOKE 3.3UH		C1504	1-106-383-00	MYLAR 0.047MF	200V
L764	1-408-413-00	INDUCTOR 22UH		C1505	1-124-907-11	ELECT 10MF	20% 50V
		<NEON LAMP>		C1506	1-106-359-00	MYLAR 0.0047MF	10% 200V
NL761	1-519-108-XX	LAMP, NEON		C1507	1-106-367-00	MYLAR 0.01MF	10% 100V
NL762	1-519-108-XX	LAMP, NEON		C1508	1-162-318-11	CERAMIC 0.001MF	10% 500V
		<TRANSISTOR>		C1509	1-106-367-00	MYLAR 0.01MF	10% 100V
Q761	8-729-119-78	TRANSISTOR 2SC2785-HFE		C1510	1-126-355-11	ELECT 33MF	20% 160V
Q762	8-729-119-78	TRANSISTOR 2SC2785-HFE		C1511	1-124-668-11	ELECT 2.2MF	20% 200V
Q763	8-729-119-80	TRANSISTOR 2SC2688-LK		C1512	1-106-391-12	MYLAR 0.1MF	10% 200V
	4-373-933-01	SHBET (TRANSISTOR), BN; Q763		C1513	1-162-318-11	CERAMIC 0.001MF	10% 500V
	4-382-854-11	SCREW (M3X10), P, SW (+); Q763		C1514	1-102-951-00	CERAMIC 15PF	5% 50V
Q764	8-729-255-12	TRANSISTOR 2SC2551-0		C1515	1-102-959-00	CERAMIC 22PF	5% 50V
Q765	8-729-200-17	TRANSISTOR 2SA1091-0		C1516	1-102-963-00	CERAMIC 33PF	5% 50V
Q766	8-729-200-17	TRANSISTOR 2SA1091-0		C1517	1-123-875-11	ELECT 10MF	20% 50V
		<RESISTOR>		C1518	1-102-074-00	CERAMIC 0.001MF	10% 50V
R761	1-202-847-00	SOLID 560K 20% 1/2W		C1519	1-106-359-00	MYLAR 0.0047MF	10% 200V
R762	1-202-814-11	SOLID 33K 20% 1/2W		C1520	1-126-803-11	ELECT 47MF	20% 16V
R763	1-202-818-00	SOLID 1K 20% 1/2W		C1521	1-124-907-11	ELECT 10MF	20% 50V
R764	1-202-842-11	SOLID 220K 20% 1/2W		C1534	1-101-003-00	CERAMIC 0.0047MF	50V
R765	1-202-828-11	SOLID 6.8K 20% 1/2W		C1551	1-124-122-11	ELECT 100MF	20% 50V
R766	1-202-561-00	SOLID 330 20% 1/2W		C1552	1-124-122-11	ELECT 100MF	20% 50V
R767	1-215-510-51	METAL OXIDE 8.2K 5% 5W F		C1553	1-102-824-00	CERAMIC 470PF	5% 50V
R768	1-249-405-11	CARBON 100 5% 1/4W F		C1554	1-102-824-00	CERAMIC 470PF	5% 50V
R769	1-249-405-11	CARBON 100 5% 1/4W F		C1555	1-130-483-00	MYLAR 0.01MF	5% 50V
R770	1-215-527-91	METAL OXIDE 47K 5% 3W F		C1556	1-130-483-00	MYLAR 0.01MF	5% 50V
R771	1-249-405-11	CARBON 100 5% 1/4W F		C1557	1-102-824-00	CERAMIC 470PF	5% 50V
R772	1-249-421-11	CARBON 2.2K 5% 1/4W F		C1558	1-102-824-00	CERAMIC 470PF	5% 50V
R773	1-249-413-11	CARBON 470 5% 1/4W		C1559	1-102-824-00	CERAMIC 470PF	5% 50V
R774	1-249-401-11	CARBON 47 5% 1/4W		C1560	1-102-824-00	CERAMIC 470PF	5% 50V
R776	1-249-405-11	CARBON 100 5% 1/4W		C1561	1-130-483-00	MYLAR 0.01MF	5% 50V
R777	1-249-403-11	CARBON 68 5% 1/4W		C1562	1-130-483-00	MYLAR 0.01MF	5% 50V
R778	1-249-412-11	CARBON 390 5% 1/4W		C1563	1-130-483-00	MYLAR 0.01MF	5% 50V
R779	1-249-415-11	CARBON 680 5% 1/4W				<DIODE>	
R780	1-249-405-11	CARBON 100 5% 1/4W		D1501	8-719-911-19	DIODE 1SS119	
R781	1-249-409-11	CARBON 220 5% 1/4W		D1502	8-719-911-19	DIODE 1SS119	
R782	1-215-423-00	METAL 1.2K 1% 1/4W		D1503	8-719-911-19	DIODE 1SS119	
R783	1-215-433-00	METAL 3.3K 1% 1/4W		D1504	8-719-911-19	DIODE 1SS119	
R784	1-215-429-00	METAL 2.2K 1% 1/4W		D1505	8-719-911-19	DIODE 1SS119	
R785	1-215-418-00	METAL 750 1% 1/4W		D1506	8-719-911-19	DIODE 1SS119	
		<SPARK GAP>		D1507	8-719-110-88	DIODE RD39ESB2	
SG761	1-519-422-11	GAP, SPARK		D1508	8-719-110-88	DIODE RD39ESB2	
SG762	1-519-422-11	GAP, SPARK		D1509	8-719-911-19	DIODE 1SS119	
		*****				<IC>	
*A-1342-214-A	V BOARD, COMPLETE	*****		IC1551	8-759-145-58	IC UPC4558C	
*4-395-527-01	HOLDER (B), TR; Q1501-Q1502			IC1552	8-759-912-77	IC LM324N	
						<COIL>	
				L1502	1-408-418-00	INDUCTOR 56UH	
						<TRANSISTOR>	
				Q1501	8-729-208-39	TRANSISTOR 2SA1306A-Y	
				Q1502	8-729-017-06	TRANSISTOR 2SC4793	
				Q1503	8-729-119-78	TRANSISTOR 2SC2785-HFE	



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specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1504	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1565	1-215-445-00	METAL 10K 1% 1/4W	
Q1505	8-729-119-76	TRANSISTOR 2SA1175-HFE		R1566	1-215-375-00	METAL 12 1% 1/4W	
Q1506	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1567	1-215-375-00	METAL 12 1% 1/4W	
Q1507	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1568	1-215-375-00	METAL 12 1% 1/4W	
Q1508	8-729-142-86	TRANSISTOR 2SC3733		R1569	1-215-445-00	METAL 10K 1% 1/4W	
Q1551	8-729-231-60	TRANSISTOR 2SD1406-YGR		R1570	1-215-445-00	METAL 10K 1% 1/4W	
Q1552	8-729-202-02	TRANSISTOR 2SB1015-Y		R1571	1-249-417-11	CARBON 1K 5% 1/4W	
Q1553	8-729-231-60	TRANSISTOR 2SD1406-YGR		R1572	1-215-445-00	METAL 10K 1% 1/4W	
Q1554	8-729-202-02	TRANSISTOR 2SB1015-Y		R1573	1-215-375-00	METAL 12 1% 1/4W	
Q1555	8-729-231-60	TRANSISTOR 2SD1406-YGR		R1574	1-215-375-00	METAL 12 1% 1/4W	
Q1556	8-729-202-02	TRANSISTOR 2SB1015-Y		R1575	1-215-375-00	METAL 12 1% 1/4W	
<RESISTOR>				R1576	1-215-445-00	METAL 10K 1% 1/4W	
R1501	1-249-451-11	CARBON 2.2 5% 1/4W	F	R1577	1-215-445-00	METAL 10K 1% 1/4W	
R1502	1-249-414-11	CARBON 560 5% 1/4W	F	R1578	1-249-417-11	CARBON 1K 5% 1/4W	
R1503	1-247-734-11	CARBON 39 5% 1/2W	F	R1579	1-249-417-11	CARBON 1K 5% 1/4W	
R1504	1-249-384-11	CARBON 1.8 5% 1/4W	F	R1580	1-249-417-11	CARBON 1K 5% 1/4W	
R1505	1-249-405-11	CARBON 100 5% 1/4W		R1581	1-249-432-11	CARBON 18K 5% 1/4W	
R1506	1-249-419-11	CARBON 1.5K 5% 1/4W		R1582	1-249-432-11	CARBON 18K 5% 1/4W	
R1507	1-249-412-11	CARBON 390 5% 1/4W		<CONNECTOR>			
R1508	1-249-436-11	CARBON 39K 5% 1/4W		V2	*1-564-518-11	PLUG, CONNECTOR 3P	
R1509	1-249-421-11	CARBON 2.2K 5% 1/4W		V22	1-573-300-11	CONNECTOR, BOARD TO BOARD 18P	
R1510	1-249-436-11	CARBON 39K 5% 1/4W		*****			
R1511	1-249-418-11	CARBON 1.2K 5% 1/4W		*A-1346-117-A D BOARD, COMPLETE			
R1512	1-249-441-11	CARBON 100K 5% 1/4W		*****			
R1513	1-249-432-11	CARBON 18K 5% 1/4W		<CAPACITOR>			
R1514	1-249-405-11	CARBON 100 5% 1/4W		C901	1-126-320-11	ELECT 10MF 20% 16V	
R1515	1-249-435-11	CARBON 33K 5% 1/4W		C902	1-124-477-11	ELECT 47MF 20% 16V	
R1517	1-247-713-11	CARBON 1K 5% 1/4W	F	C903	1-130-471-00	MYLAR 0.001MF 5% 50V	
R1518	1-215-816-01	METAL COIL 20 5% 3W	F	C904	1-130-471-00	MYLAR 0.001MF 5% 50V	
R1520	1-249-432-11	CARBON 18K 5% 1/4W		C905	1-124-477-11	ELECT 47MF 20% 16V	
R1521	1-249-414-11	CARBON 560 5% 1/4W		C906	1-126-233-11	ELECT 22MF 20% 50V	
R1522	1-249-384-11	CARBON 1.8 5% 1/4W	F	C907	1-126-101-11	ELECT 100MF 20% 16V	
R1523	1-249-400-11	CARBON 39 5% 1/4W	F	C908	1-124-907-11	ELECT 10MF 20% 50V	
R1524	1-249-418-11	CARBON 1.2K 5% 1/4W		C910	1-130-483-00	MYLAR 0.01MF 5% 50V	
R1525	1-249-421-11	CARBON 2.2K 5% 1/4W		C911	1-131-341-00	TANTALUM 0.1MF 20% 16V	
R1526	1-249-426-11	CARBON 5.6K 5% 1/4W		C912	1-124-903-11	ELECT 1MF 20% 50V	
R1527	1-249-414-11	CARBON 560 5% 1/4W		C913	1-126-233-11	ELECT 22MF 20% 50V	
R1528	1-249-429-11	CARBON 10K 5% 1/4W		C914	1-126-803-11	ELECT 47MF 20% 16V	
R1529	1-249-414-11	CARBON 560 5% 1/4W		C915	1-124-927-11	ELECT 4.7MF 20% 50V	
R1530	1-215-851-01	METAL COIL 20 5% 2W	F	C916	1-102-074-00	CERAMIC 0.001MF 10% 50V	
R1531	1-249-429-11	CARBON 10K 5% 1/4W		C917	1-130-471-00	MYLAR 0.001MF 5% 50V	
R1532	1-249-421-11	CARBON 2.2K 5% 1/4W		C918	1-102-963-00	CERAMIC 33PF 5% 50V	
R1533	1-247-903-00	CARBON 1M 5% 1/4W		C919	1-102-963-00	CERAMIC 33PF 5% 50V	
R1534	1-249-423-11	CARBON 3.3K 5% 1/4W		C920	1-102-963-00	CERAMIC 33PF 5% 50V	
R1535	1-249-392-11	CARBON 8.2 5% 1/4W	F	C921	1-102-963-00	CERAMIC 33PF 5% 50V	
R1540	1-215-445-00	METAL 10K 1% 1/4W		C922	1-102-963-00	CERAMIC 33PF 5% 50V	
R1541	1-215-445-00	METAL 10K 1% 1/4W		C923	1-102-963-00	CERAMIC 33PF 5% 50V	
R1542	1-215-445-00	METAL 10K 1% 1/4W		C931	1-102-973-00	CERAMIC 100PF 5% 50V	
R1551	1-215-445-00	METAL 10K 1% 1/4W		C932	1-124-903-11	ELECT 1MF 20% 50V	
R1552	1-215-423-00	METAL 1.2K 1% 1/4W		C933	1-124-234-00	ELECT 22MF 20% 16V	
R1553	1-249-417-11	CARBON 1K 5% 1/4W		C934	1-124-234-00	ELECT 22MF 20% 16V	
R1554	1-215-445-00	METAL 10K 1% 1/4W		C935	1-124-234-00	ELECT 22MF 20% 16V	
R1555	1-215-375-00	METAL 12 1% 1/4W		C936	1-124-234-00	ELECT 22MF 20% 16V	
R1556	1-215-375-00	METAL 12 1% 1/4W		C937	1-124-234-00	ELECT 22MF 20% 16V	
R1557	1-215-375-00	METAL 12 1% 1/4W		C938	1-124-234-00	ELECT 22MF 20% 16V	
R1558	1-215-445-00	METAL 10K 1% 1/4W		C939	1-124-234-00	ELECT 22MF 20% 16V	
R1559	1-215-445-00	METAL 10K 1% 1/4W		C940	1-124-916-11	ELECT 22MF 20% 25V	
R1560	1-215-445-00	METAL 10K 1% 1/4W		C941	1-102-123-00	CERAMIC 0.0033MF 10% 50V	
R1561	1-215-423-00	METAL 1.2K 1% 1/4W					
R1562	1-215-423-00	METAL 1.2K 1% 1/4W					
R1563	1-215-445-00	METAL 10K 1% 1/4W					
R1564	1-249-417-11	CARBON 1K 5% 1/4W					

D

Les composants identifiés par
 une trame et une marque Δ
 sont critiques pour la sécurité
 Ne les remplacer que par une
 pièce portant le numéro spécifié.

The components identified by
 shading and mark Δ are critical
 for safety
 Replace only with part number
 specified

REF.NO. PART NO. DESCRIPTION

IC1708 8-759-113-13 IC UPC1498H
 IC1709 8-759-145-58 IC UPC4558C
 IC1710 8-759-145-58 IC UPC4558C
 IC1714 8-759-145-58 IC UPC4558C
 IC1715 8-759-145-58 IC UPC4558C
 IC1718 8-759-145-58 IC UPC4558C

<COIL>

L901 1-459-313-00 COIL WITH CORE (HWC)
 L902 1-459-313-00 COIL WITH CORE (HWC)
 L903 1-459-313-00 COIL WITH CORE (HWC)
 L904 1-459-313-00 COIL WITH CORE (HWC)

<TRANSISTOR>

Q902 8-729-900-89 TRANSISTOR DTC144ES
 Q906 8-729-119-78 TRANSISTOR 2SC2785-HFE
 Q907 8-729-119-78 TRANSISTOR 2SC2785-HFE
 Q908 8-729-900-89 TRANSISTOR DTC144ES
 Q909 8-729-119-78 TRANSISTOR 2SC2785-HFE
 Q910 8-729-119-78 TRANSISTOR 2SC2785-HFE
 Q911 8-729-119-76 TRANSISTOR 2SA1175-HFE
 Q912 8-729-119-76 TRANSISTOR 2SA1175-HFE

<RESISTOR>

R901 1-215-463-00 METAL 56K 1% 1/4W
 R902 1-215-463-00 METAL 56K 1% 1/4W
 R903 1-215-449-00 METAL 15K 1% 1/4W
 R904 1-215-455-00 METAL 27K 1% 1/4W
 R905 1-215-449-00 METAL 15K 1% 1/4W
 R906 1-215-469-00 METAL 100K 1% 1/4W
 R907 1-215-469-00 METAL 100K 1% 1/4W
 R908 1-215-469-00 METAL 100K 1% 1/4W
 R909 1-215-473-00 METAL 150K 1% 1/4W
 R910 1-215-437-00 METAL 4.7K 1% 1/4W
 R911 1-215-453-00 METAL 22K 1% 1/4W
 R912 1-215-453-00 METAL 22K 1% 1/4W
 R913 1-215-437-00 METAL 4.7K 1% 1/4W
 R914 1-215-453-00 METAL 22K 1% 1/4W
 R915 1-215-413-00 METAL 470 1% 1/4W
 R916 1-215-457-00 METAL 33K 1% 1/4W
 R917 1-215-453-00 METAL 22K 1% 1/4W
 R919 1-215-399-00 METAL 120 1% 1/4W
 R920 1-215-399-00 METAL 120 1% 1/4W
 R921 1-215-399-00 METAL 120 1% 1/4W
 R922 1-215-399-00 METAL 120 1% 1/4W
 R923 1-215-441-00 METAL 6.8K 1% 1/4W
 R924 1-215-441-00 METAL 6.8K 1% 1/4W
 R925 1-215-441-00 METAL 6.8K 1% 1/4W
 R926 1-215-463-00 METAL 56K 1% 1/4W
 R927 1-215-463-00 METAL 56K 1% 1/4W
 R928 1-215-461-00 METAL 47K 1% 1/4W
 R929 1-215-433-00 METAL 3.3K 1% 1/4W
 R930 1-215-433-00 METAL 3.3K 1% 1/4W
 R931 1-215-433-00 METAL 3.3K 1% 1/4W
 R932 1-215-433-00 METAL 3.3K 1% 1/4W
 R933 1-215-433-00 METAL 3.3K 1% 1/4W
 R934 1-215-433-00 METAL 3.3K 1% 1/4W
 R935 1-215-439-00 METAL 5.6K 1% 1/4W
 R936 1-215-439-00 METAL 5.6K 1% 1/4W
 R937 1-215-439-00 METAL 5.6K 1% 1/4W
 R938 1-215-417-00 METAL 680 1% 1/4W

REMARK

REF.NO. PART NO. DESCRIPTION

REMARK

R939 1-215-433-00 METAL 3.3K 1% 1/4W
 R940 1-215-429-00 METAL 2.2K 1% 1/4W
 R941 1-215-441-00 METAL 6.8K 1% 1/4W
 R942 1-215-451-00 METAL 18K 1% 1/4W
 R943 1-215-441-00 METAL 6.8K 1% 1/4W
 R944 1-215-439-00 METAL 5.6K 1% 1/4W
 R945 1-215-445-00 METAL 10K 1% 1/4W
 R946 1-215-445-00 METAL 10K 1% 1/4W
 R947 1-215-439-00 METAL 5.6K 1% 1/4W
 R948 1-215-447-00 METAL 12K 1% 1/4W
 R949 1-215-439-00 METAL 5.6K 1% 1/4W
 R950 1-215-429-00 METAL 2.2K 1% 1/4W
 R951 1-215-429-00 METAL 2.2K 1% 1/4W
 R952 1-215-429-00 METAL 2.2K 1% 1/4W
 R953 1-215-439-00 METAL 5.6K 1% 1/4W
 R954 1-215-439-00 METAL 5.6K 1% 1/4W
 R955 1-215-435-00 METAL 3.9K 1% 1/4W
 R956 1-215-437-00 METAL 4.7K 1% 1/4W
 R957 1-215-441-00 METAL 6.8K 1% 1/4W
 R958 1-215-437-00 METAL 4.7K 1% 1/4W
 R959 1-215-439-00 METAL 5.6K 1% 1/4W
 R960 1-215-439-00 METAL 5.6K 1% 1/4W
 R961 1-215-439-00 METAL 5.6K 1% 1/4W
 R962 1-215-441-00 METAL 6.8K 1% 1/4W
 R963 1-215-441-00 METAL 6.8K 1% 1/4W
 R964 1-215-441-00 METAL 6.8K 1% 1/4W
 R965 1-215-469-00 METAL 100K 1% 1/4W
 R966 1-215-469-00 METAL 100K 1% 1/4W
 R967 1-215-421-00 METAL 1K 1% 1/4W
 R968 1-215-437-00 METAL 4.7K 1% 1/4W
 R969 1-249-421-11 CARBON 2.2K 5% 1/4W
 R970 1-215-439-00 METAL 5.6K 1% 1/4W
 R971 1-249-421-11 CARBON 2.2K 5% 1/4W
 R972 1-249-431-11 CARBON 15K 5% 1/4W
 R973 1-249-431-11 CARBON 15K 5% 1/4W
 R974 1-215-399-00 METAL 120 1% 1/4W
 R975 1-215-399-00 METAL 120 1% 1/4W
 R976 1-215-399-00 METAL 120 1% 1/4W
 R977 1-215-399-00 METAL 120 1% 1/4W
 R978 1-215-399-00 METAL 120 1% 1/4W
 R979 1-215-399-00 METAL 120 1% 1/4W
 R980 1-215-399-00 METAL 120 1% 1/4W
 R981 1-215-399-00 METAL 120 1% 1/4W
 R982 1-249-431-11 CARBON 15K 5% 1/4W
 R983 1-249-431-11 CARBON 15K 5% 1/4W
 R984 1-214-804-11 METAL 3.3 1% 1/2W
 R985 1-214-804-11 METAL 3.3 1% 1/2W
 R986 1-214-804-11 METAL 3.3 1% 1/2W
 R987 1-215-421-00 METAL 1K 1% 1/4W
 R988 1-215-421-00 METAL 1K 1% 1/4W
 R989 1-215-421-00 METAL 1K 1% 1/4W
 R990 1-215-421-00 METAL 1K 1% 1/4W
 R991 1-215-421-00 METAL 1K 1% 1/4W
 R992 1-215-421-00 METAL 1K 1% 1/4W
 R993 1-249-429-11 CARBON 10K 5% 1/4W
 R994 1-249-429-11 CARBON 10K 5% 1/4W
 R995 1-215-457-00 METAL 33K 1% 1/4W
 R997 1-215-463-00 METAL 56K 1% 1/4W
 R998 1-215-409-00 METAL 330 1% 1/4W
 R999 1-215-455-00 METAL 27K 1% 1/4W
 R1701 1-249-411-11 CARBON 330 5% 1/4W
 R1702 1-249-427-11 CARBON 6.8K 5% 1/4W
 R1703 1-249-427-11 CARBON 6.8K 5% 1/4W

The components identified by shading and mark Δ are critical for safety

Replace only with part number specified

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité

Ne les remplacer que par une pièce portant le numéro spécifié

KP-46V15/46V16
KP-53V15/53V16/61V15
RM-Y115

D

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R1704	1-249-411-11	CARBON	330 5% 1/4W	R1768	1-249-439-11	CARBON	68K 5% 1/4W
R1705	1-249-411-11	CARBON	330 5% 1/4W	R1769	1-215-445-00	METAL	10K 1% 1/4W
R1706	1-249-427-11	CARBON	6.8K 5% 1/4W	R1770	1-249-405-11	CARBON	100 5% 1/4W
R1707	1-249-411-11	CARBON	330 5% 1/4W	R1771	1-249-405-11	CARBON	100 5% 1/4W
R1708	1-249-427-11	CARBON	6.8K 5% 1/4W	R1772	1-215-429-00	METAL	2.2K 1% 1/4W
R1709	1-249-427-11	CARBON	6.8K 5% 1/4W	R1773	1-215-429-00	METAL	2.2K 1% 1/4W
R1710	1-249-411-11	CARBON	330 5% 1/4W	R1774	1-215-421-00	METAL	1K 1% 1/4W
R1711	1-249-411-11	CARBON	330 5% 1/4W	R1775	1-249-429-11	CARBON	10K 5% 1/4W
R1712	1-249-427-11	CARBON	6.8K 5% 1/4W	R1776	1-215-421-00	METAL	1K 1% 1/4W
R1713	1-215-886-01	METAL OXIDE	10K 5% 2W F	R1777	1-249-423-11	CARBON	3.3K 5% 1/4W
R1714	1-249-411-11	CARBON	330 5% 1/4W	R1778	1-215-421-00	METAL	1K 1% 1/4W
R1715	1-249-411-11	CARBON	330 5% 1/4W	R1779	1-215-886-01	METAL OXIDE	10K 5% 2W F
R1716	1-215-886-01	METAL OXIDE	10K 5% 2W F	R1780	1-214-804-11	METAL	3.3 1% 1/2W
R1717	1-249-411-11	CARBON	330 5% 1/4W	R1781	1-214-804-11	METAL	3.3 1% 1/2W
R1718	1-249-417-11	CARBON	1K 5% 1/4W	R1782	1-215-886-01	METAL OXIDE	10K 5% 2W F
R1719	1-214-792-00	METAL	1 1% 1/2W	R1783	1-214-804-11	METAL	3.3 1% 1/2W
R1720	1-249-411-11	CARBON	330 5% 1/4W	R1784	1-214-804-11	METAL	3.3 1% 1/2W
R1721	1-249-417-11	CARBON	1K 5% 1/4W	R1785	1-215-886-01	METAL OXIDE	10K 5% 2W F
R1722	1-249-411-11	CARBON	330 5% 1/4W	R1786	1-214-804-11	METAL	3.3 1% 1/2W
R1723	1-249-417-11	CARBON	1K 5% 1/4W	R1787	1-214-804-11	METAL	3.3 1% 1/2W
R1724	1-215-886-01	METAL OXIDE	10K 5% 2W F	R1788	1-249-433-11	CARBON	22K 5% 1/4W
R1725	1-215-886-01	METAL OXIDE	10K 5% 2W F	R1789	1-249-441-11	CARBON	100K 5% 1/4W
R1726	1-215-886-01	METAL OXIDE	10K 5% 2W F	R1790	1-249-433-11	CARBON	22K 5% 1/4W
R1727	1-214-792-00	METAL	1 1% 1/2W	R1791	1-249-429-11	CARBON	10K 5% 1/4W
R1728	1-214-792-00	METAL	1 1% 1/2W	R1792	1-215-445-00	METAL	10K 1% 1/4W
R1729	1-214-792-00	METAL	1 1% 1/2W	R1793	1-249-405-11	CARBON	100 5% 1/4W
R1730	1-249-405-11	CARBON	100 5% 1/4W	R1794	1-215-429-00	METAL	2.2K 1% 1/4W
R1731	1-249-417-11	CARBON	1K 5% 1/4W	R1795	1-249-433-11	CARBON	22K 5% 1/4W
R1732	1-249-405-11	CARBON	100 5% 1/4W	R1796	1-249-405-11	CARBON	100 5% 1/4W
R1733	1-249-405-11	CARBON	100 5% 1/4W	R1797	1-249-429-11	CARBON	10K 5% 1/4W
R1734	1-249-405-11	CARBON	100 5% 1/4W	R1798	1-249-423-11	CARBON	3.3K 5% 1/4W
R1735	1-249-405-11	CARBON	100 5% 1/4W	R1800	1-249-405-11	CARBON	100 5% 1/4W
R1736	1-249-423-11	CARBON	3.3K 5% 1/4W	R1801	1-215-439-00	METAL	5.6K 1% 1/4W
R1737	1-249-423-11	CARBON	3.3K 5% 1/4W	R1802	1-215-439-00	METAL	5.6K 1% 1/4W
R1738	1-249-423-11	CARBON	3.3K 5% 1/4W	R1803	1-215-439-00	METAL	5.6K 1% 1/4W
R1739	1-249-423-11	CARBON	3.3K 5% 1/4W	R1805	1-215-439-00	METAL	5.6K 1% 1/4W
R1740	1-249-417-11	CARBON	1K 5% 1/4W	R1806	1-249-405-11	CARBON	100 5% 1/4W
R1741	1-249-423-11	CARBON	3.3K 5% 1/4W	R1807	1-249-405-11	CARBON	100 5% 1/4W
R1742	1-249-423-11	CARBON	3.3K 5% 1/4W	R1808	1-214-792-00	METAL	1 1% 1/2W
R1743	1-249-417-11	CARBON	1K 5% 1/4W	R1809	1-214-792-00	METAL	1 1% 1/2W
R1744	1-249-411-11	CARBON	330 5% 1/4W	R1810	1-214-792-00	METAL	1 1% 1/2W
R1745	1-249-405-11	CARBON	100 5% 1/4W	R1811	1-214-792-00	METAL	1 1% 1/2W
R1746	1-214-792-00	METAL	1 1% 1/2W	R1812	1-214-792-00	METAL	1 1% 1/2W
R1747	1-215-886-01	METAL OXIDE	10K 5% 2W F	R1813	1-214-792-00	METAL	1 1% 1/2W
R1748	1-215-421-00	METAL	1K 1% 1/4W	R1814	1-249-431-11	CARBON	15K 5% 1/4W
R1749	1-215-421-00	METAL	1K 1% 1/4W	R1815	1-247-885-00	CARBON	180K 5% 1/4W
R1750	1-215-421-00	METAL	1K 1% 1/4W	R1816	1-249-431-11	CARBON	15K 5% 1/4W
R1751	1-215-421-00	METAL	1K 1% 1/4W	R1817	1-247-885-00	CARBON	180K 5% 1/4W
R1752	1-215-421-00	METAL	1K 1% 1/4W	R1818	1-249-405-11	CARBON	100 5% 1/4W
R1753	1-215-421-00	METAL	1K 1% 1/4W	R1819	1-215-437-00	METAL	4.7K 1% 1/4W
R1754	1-214-792-00	METAL	1 1% 1/2W	R1820	1-215-437-00	METAL	4.7K 1% 1/4W
R1755	1-215-469-00	METAL	100K 1% 1/4W	R1821	1-215-437-00	METAL	4.7K 1% 1/4W
R1756	1-215-437-00	METAL	4.7K 1% 1/4W	R1822	1-215-445-00	METAL	10K 1% 1/4W
R1757	1-215-437-00	METAL	4.7K 1% 1/4W	R1823	1-215-445-00	METAL	10K 1% 1/4W
R1758	1-215-437-00	METAL	4.7K 1% 1/4W	R1824	1-215-433-00	METAL	3.3K 1% 1/4W
R1759	1-249-405-11	CARBON	100 5% 1/4W	R1825	1-215-433-00	METAL	3.3K 1% 1/4W
R1760	1-249-427-11	CARBON	6.8K 5% 1/4W	R1826	1-215-433-00	METAL	3.3K 1% 1/4W
R1761	1-249-419-11	CARBON	1.5K 5% 1/4W	R1827	1-215-445-00	METAL	10K 1% 1/4W
R1762	1-215-445-00	METAL	10K 1% 1/4W	R1828	1-215-445-00	METAL	10K 1% 1/4W
R1763	1-249-427-11	CARBON	6.8K 5% 1/4W	R1829	1-249-434-11	CARBON	27K 5% 1/4W
R1764	1-249-419-11	CARBON	1.5K 5% 1/4W	R1830	1-249-434-11	CARBON	27K 5% 1/4W
R1765	1-249-419-11	CARBON	1.5K 5% 1/4W	R1831	1-249-405-11	CARBON	100 5% 1/4W
R1766	1-249-427-11	CARBON	6.8K 5% 1/4W	R1832	1-215-471-00	METAL	120K 1% 1/4W
R1767	1-249-427-11	CARBON	6.8K 5% 1/4W				

D DS H1

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
RV949	1-241-631-11	RES, ADJ, CARBON 22K		R1842	1-215-465-00	METAL 68K 1%	1/4W
RV950	1-241-631-11	RES, ADJ, CARBON 22K		R1843	1-215-421-00	METAL 1K 1%	1/4W
RV951	1-241-631-11	RES, ADJ, CARBON 22K		R1844	1-215-455-00	METAL 27K 1%	1/4W
RV952	1-241-631-11	RES, ADJ, CARBON 22K					
RV953	1-241-631-11	RES, ADJ, CARBON 22K		R1845	1-215-455-00	METAL 27K 1%	1/4W
				R1846	1-215-421-00	METAL 1K 1%	1/4W
RV954	1-241-631-11	RES, ADJ, CARBON 22K		R1850	1-215-461-00	METAL 47K 1%	1/4W
RV956	1-241-631-11	RES, ADJ, CARBON 22K		R1851	1-215-461-00	METAL 47K 1%	1/4W
RV957	1-241-631-11	RES, ADJ, CARBON 22K		R1852	1-215-429-00	METAL 2.2K 1%	1/4W
RV958	1-241-631-11	RES, ADJ, CARBON 22K					
RV959	1-241-631-11	RES, ADJ, CARBON 22K		R1853	1-215-397-00	METAL 100 1%	1/4W
				R1854	1-215-429-00	METAL 2.2K 1%	1/4W
RV960	1-241-630-11	RES, ADJ, CARBON 10K		R1855	1-215-397-00	METAL 100 1%	1/4W
RV961	1-241-631-11	RES, ADJ, CARBON 22K		R1940	1-215-445-00	METAL 10K 1%	1/4W
RV962	1-241-631-11	RES, ADJ, CARBON 22K		R1941	1-215-433-00	METAL 3.3K 1%	1/4W
RV963	1-241-631-11	RES, ADJ, CARBON 22K					
RV964	1-241-631-11	RES, ADJ, CARBON 22K		R1942	1-215-421-00	METAL 1K 1%	1/4W
				R1943	1-215-465-00	METAL 68K 1%	1/4W
RV965	1-241-631-11	RES, ADJ, CARBON 22K		R1944	1-215-421-00	METAL 1K 1%	1/4W
RV966	1-241-631-11	RES, ADJ, CARBON 22K		R1945	1-215-455-00	METAL 27K 1%	1/4W
RV967	1-241-631-11	RES, ADJ, CARBON 22K		R1946	1-215-455-00	METAL 27K 1%	1/4W
RV968	1-241-631-11	RES, ADJ, CARBON 22K					
RV969	1-241-631-11	RES, ADJ, CARBON 22K					
				<VARIABLE RESISTOR>			
RV970	1-241-631-11	RES, ADJ, CARBON 22K		RV983	1-241-630-11	RES, ADJ, CARBON 10K	
RV971	1-241-631-11	RES, ADJ, CARBON 22K		RV984	1-241-630-11	RES, ADJ, CARBON 10K	
RV972	1-241-631-11	RES, ADJ, CARBON 22K					
RV973	1-241-631-11	RES, ADJ, CARBON 22K		*****			
RV974	1-241-631-11	RES, ADJ, CARBON 22K					
				*1-643-591-11	H1 BOARD		
RV975	1-241-631-11	RES, ADJ, CARBON 22K			*****		
RV976	1-241-631-11	RES, ADJ, CARBON 22K					
RV977	1-241-631-11	RES, ADJ, CARBON 22K		4-033-777-01	HOLDER, LED		
RV978	1-241-631-11	RES, ADJ, CARBON 22K		*4-374-987-01	GUIDE, LIGHT		
RV979	1-241-631-11	RES, ADJ, CARBON 22K		4-381-686-01	BRACKET (B), LIGHT GUIDE		
RV980	1-238-019-11	RES, ADJ, CARBON 47K		<CAPACITOR>			
RV981	1-241-631-11	RES, ADJ, CARBON 22K		C1601	1-124-907-11	ELECT 10MF 20%	50V
RV982	1-241-631-11	RES, ADJ, CARBON 22K		C1602	1-124-907-11	ELECT 10MF 20%	50V
				C1603	1-124-907-11	ELECT 10MF 20%	50V
*****				C1604	1-124-261-00	ELECT 10MF 20%	50V
*1-644-278-11	DS BOARD						
	*****			<DIODE>			
				D1601	8-719-812-41	DIODE TLR124	
<CAPACITOR>				D1602	8-719-812-41	DIODE TLR124	
C1745	1-126-101-11	ELECT 100MF 20%	16V				
C1746	1-126-101-11	ELECT 100MF 20%	16V	<CONNECTOR>			
C1747	1-126-101-11	ELECT 100MF 20%	16V	H11	*1-564-526-11	PLUG, CONNECTOR 11P	
C1748	1-126-101-11	ELECT 100MF 20%	16V	H15	*1-564-517-11	PLUG, CONNECTOR 2P	
C1750	1-124-916-11	ELECT 22MF 20%	25V				
				<IC>			
C1751	1-126-101-11	ELECT 100MF 20%	16V	IC1601	8-741-148-33	IC SBX1483-59	
C1752	1-124-916-11	ELECT 22MF 20%	25V				
C1753	1-124-916-11	ELECT 22MF 20%	25V	<RESISTOR>			
C1851	1-102-074-00	CERAMIC 0.001MF 10%	50V	R1601	1-249-430-11	CARBON 12K 5%	1/4W
				R1602	1-249-425-11	CARBON 4.7K 5%	1/4W
<CONNECTOR>				R1603	1-249-421-11	CARBON 2.2K 5%	1/4W
DS6	1-691-182-11	CONNECTOR (BOARD TO BOARD) 12P		R1604	1-249-419-11	CARBON 1.5K 5%	1/4W
				R1606	1-249-405-11	CARBON 100 5%	1/4W
<IC>							
IC1711	8-759-111-69	IC UPC1037HA		R1607	1-249-405-11	CARBON 100 5%	1/4W
IC1712	8-759-602-19	IC M5220L		R1608	1-249-411-11	CARBON 330 5%	1/4W
IC1713	8-759-111-69	IC UPC1037HA		R1609	1-249-411-11	CARBON 330 5%	1/4W
<RESISTOR>							
R1840	1-215-445-00	METAL 10K 1%	1/4W				
R1841	1-215-433-00	METAL 3.3K 1%	1/4W				

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 specified

H1

H2

ZR

ZG

ZB

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<SWITCH>				<SWITCH>			
S1601	1-554-303-21	SWITCH, TACTIL		RY1651	1-515-586-11	RELAY (DS-2)	
S1602	1-554-303-21	SWITCH, TACTIL		RY1652	1-515-586-11	RELAY (DS-2)	
S1603	1-554-303-21	SWITCH, TACTIL		<SWITCH>			
S1604	1-554-303-21	SWITCH, TACTIL		S1651	1-554-303-21	SWITCH, TACTIL	
S1605	1-554-303-21	SWITCH, TACTIL		S1652	1-554-303-21	SWITCH, TACTIL	
S1606	1-571-731-21	SWITCH, TACTIL		S1653	1-554-303-21	SWITCH, TACTIL	
*****				S1654	1-554-303-21	SWITCH, TACTIL	
*1-643-592-11 H2 BOARD				S1655	1-554-303-21	SWITCH, TACTIL	
*****				*****			
<CAPACITOR>				*A-1390-340-A ZR BOARD, COMPLETE			
C1651	1-124-477-11	ELECT	47MF 20% 16V	*****			
C1655	1-124-927-11	ELECT	4.7MF 20% 50V	<CAPACITOR>			
<DIODE>				C1901	1-162-115-00	CERAMIC 330PF 10% 2KV	
D1651	8-719-908-03	DIODE GP08D		C1902	1-162-115-00	CERAMIC 330PF 10% 2KV	
D1652	8-719-908-03	DIODE GP08D		<RESISTOR>			
D1653	8-719-108-12	DIODE RD9.1EW		R1901	1-202-818-00	SOLID 1K 20% 1/2W	
D1654	8-719-108-12	DIODE RD9.1EW		R1902	1-202-818-00	SOLID 1K 20% 1/2W	
D1655	8-719-108-12	DIODE RD9.1EW		R1903	1-249-414-11	CARBON 560 5% 1/4W	
D1659	8-719-911-19	DIODE 1SS119		R1904	1-249-414-11	CARBON 560 5% 1/4W	
D1660	8-719-110-88	DIODE RD39ESB2		<CONNECTOR>			
D1661	8-719-110-88	DIODE RD39ESB2		ZR2	*1-564-518-11	PLUG, CONNECTOR 3P	
D1662	8-719-110-88	DIODE RD39ESB2		ZR18	*1-691-292-11	PIN, CONNECTOR (PC BOARD) 3P	
D1663	8-719-110-88	DIODE RD39ESB2		ZR-1	*1-564-522-11	PLUG, CONNECTOR 7P	
<CONNECTOR>				*****			
H22	*1-564-519-11	PLUG, CONNECTOR 4P		*A-1390-346-A ZG BOARD, COMPLETE			
H25	*1-564-517-11	PLUG, CONNECTOR 2P		*****			
H26	*1-564-519-11	PLUG, CONNECTOR 4P		<CAPACITOR>			
H28	*1-564-518-11	PLUG, CONNECTOR 3P		C1911	1-162-115-00	CERAMIC 330PF 10% 2KV	
H211	*1-564-517-11	PLUG, CONNECTOR 2P		C1912	1-162-115-00	CERAMIC 330PF 10% 2KV	
H216	*1-564-525-11	PLUG, CONNECTOR 10P		<RESISTOR>			
H225	*1-564-518-11	PLUG, CONNECTOR 3P		R1911	1-202-818-00	SOLID 1K 20% 1/2W	
<JACK>				R1912	1-202-818-00	SOLID 1K 20% 1/2W	
J1651	1-695-817-11	JACK BLOCK, PIN 3P		R1913	1-249-414-11	CARBON 560 5% 1/4W	
<TRANSISTOR>				R1914	1-249-414-11	CARBON 560 5% 1/4W	
Q1651	8-729-119-78	TRANSISTOR 2SC2785-HFE		<CONNECTOR>			
Q1652	8-729-119-78	TRANSISTOR 2SC2785-HFE		ZG19	*1-691-292-11	PIN, CONNECTOR (PC BOARD) 3P	
Q1653	8-729-119-78	TRANSISTOR 2SC2785-HFE		ZG-2	*1-564-523-11	PLUG, CONNECTOR 8P	
<RESISTOR>				*****			
R1651	1-249-419-11	CARBON 1.5K 5% 1/4W		*A-1390-347-A ZB BOARD, COMPLETE			
R1652	1-249-421-11	CARBON 2.2K 5% 1/4W		*****			
R1653	1-249-425-11	CARBON 4.7K 5% 1/4W		<CAPACITOR>			
R1654	1-249-430-11	CARBON 12K 5% 1/4W		C1921	1-162-115-00	CERAMIC 330PF 10% 2KV	
R1655	1-249-417-11	CARBON 1K 5% 1/4W		C1922	1-162-115-00	CERAMIC 330PF 10% 2KV	
R1656	1-249-417-11	CARBON 1K 5% 1/4W		<RELAY>			
R1657	1-249-436-11	CARBON 39K 5% 1/4W					
R1658	1-249-437-11	CARBON 47K 5% 1/4W					
R1659	1-249-437-11	CARBON 47K 5% 1/4W					

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KP-46V15/46V16/53V15/53V16/61V15
RM-Y115

ZB

N


REF.NO.	PART NO.	DESCRIPTION	REMARK
<RESISTOR>			
R1921	1-202-818-00	SOLID 1K 20% 1/2W	
R1922	1-202-818-00	SOLID 1K 20% 1/2W	
R1923	1-249-414-11	CARBON 560 5% 1/4W	
R1924	1-249-414-11	CARBON 560 5% 1/4W	
<CONNECTOR>			
ZB20	*1-691-292-11	PIN, CONNECTOR (PC BOARD) 3P	
ZB-3	*1-564-524-11	PLUG, CONNECTOR 9P	


*A-1390-351-A N BOARD, COMPLETE			


<CAPACITOR>			
C801	1-125-489-00	ELECT (BLOCK) 560MF 20% 200V	
C802	1-123-024-21	ELECT 33MF 160V	
C803	1-136-729-11	FILM 1.5MF 5% 400V	
C804	1-106-383-00	MYLAR 0.047MF 200V	
C805	1-102-030-00	CERAMIC 330PF 10% 500V	
C806	1-130-495-00	MYLAR 0.1MF 5% 50V	
C807	1-123-875-11	ELECT 10MF 20% 50V	
C808	1-126-183-11	ELECT 1000MF 20% 16V	
C809	1-124-903-11	ELECT 1MF 20% 50V	
C810	1-124-903-11	ELECT 1MF 20% 50V	
C811	1-124-902-00	ELECT 0.47MF 20% 50V	
C812	1-102-973-00	CERAMIC 100PF 5% 50V	
C813	1-102-244-00	CERAMIC 220PF 10% 500V	
C814	1-106-391-12	MYLAR 0.1MF 10% 200V	
C815	1-106-367-00	MYLAR 0.01MF 10% 200V	
C816	1-124-907-11	ELECT 10MF 20% 50V	
C817	1-124-119-00	ELECT 330MF 20% 16V	
C818	1-102-824-00	CERAMIC 470PF 5% 50V	
C819	1-124-907-11	ELECT 10MF 20% 50V	
C820	1-124-907-11	ELECT 10MF 20% 50V	
C821	1-124-907-11	ELECT 10MF 20% 50V	
C822	1-124-034-51	ELECT 33MF 20% 16V	
C823	1-124-907-11	ELECT 10MF 20% 50V	
C824	1-124-034-51	ELECT 33MF 20% 16V	
C825	1-124-034-51	ELECT 33MF 20% 16V	
C826	1-124-907-11	ELECT 10MF 20% 50V	
C827	1-124-907-11	ELECT 10MF 20% 50V	
C828	1-124-907-11	ELECT 10MF 20% 50V	
C829	1-124-034-51	ELECT 33MF 20% 16V	
C830	1-124-907-11	ELECT 10MF 20% 50V	
C831	1-106-220-00	MYLAR 0.1MF 10% 100V	
C832	1-124-907-11	ELECT 10MF 20% 50V	
C833	1-124-916-11	ELECT 22MF 20% 50V	
C834	1-102-121-00	CERAMIC 0.0022MF 10% 50V	
C835	1-124-927-11	ELECT 4.7MF 20% 50V	
C836	1-130-475-00	MYLAR 0.0022MF 5% 50V	
C837	1-136-169-00	FILM 0.22MF 5% 50V	
C838	1-130-475-00	MYLAR 0.0022MF 5% 50V	
C839	1-102-106-00	CERAMIC 100PF 10% 50V	
C840	1-136-887-11	FILM 0.01MF 5% 1.6KV	
C841	1-136-729-11	FILM 1.5MF 5% 400V	
C842	1-130-471-00	MYLAR 0.001MF 5% 50V	
C844	1-106-391-12	MYLAR 0.1MF 10% 200V	
C850	1-136-169-00	FILM 0.22MF 5% 50V	
C851	1-124-907-11	ELECT 10MF 20% 50V	
C852	1-124-907-11	ELECT 10MF 20% 50V	

REF.NO.	PART NO.	DESCRIPTION	REMARK
C853	1-106-220-00	MYLAR 0.1MF 10% 100V	
C854	1-126-329-11	ELECT 470MF 20% 50V	
C855	1-124-514-11	ELECT 100MF 20% 50V	
C856	1-162-114-00	CERAMIC 0.0047MF 2KV	
C858	1-124-119-00	ELECT 330MF 20% 16V	
C888	1-124-903-11	ELECT 1MF 20% 50V	
<DIODE>			
D801	8-719-928-08	DIODE ERD28-08S	
D802	8-719-300-80	DIODE RU-1C	
D803	8-719-109-85	DIODE RD5.1ESB2	
D804	8-719-911-19	DIODE 1SS119	
D805	8-719-911-19	DIODE 1SS119	
D806	8-719-109-85	DIODE RD5.1ESB2	
D807	8-719-109-85	DIODE RD5.1ESB2	
D808	8-719-911-19	DIODE 1SS119	
D809	8-719-911-19	DIODE 1SS119	
D810	8-719-911-19	DIODE 1SS119	
D811	8-719-109-85	DIODE RD5.1ESB2	
D812	8-719-911-19	DIODE 1SS119	
D813	8-719-911-19	DIODE 1SS119	
D814	8-719-911-19	DIODE 1SS119	
D815	8-719-110-36	DIODE RD13ESB2	
D817	8-719-945-80	DIODE ERC06-15S	
D818	8-719-911-19	DIODE 1SS119	
D820	8-719-911-19	DIODE 1SS119	
D850	8-719-109-71	DIODE RD3.9ESB1	
D851	8-719-911-19	DIODE 1SS119	
D852	8-719-911-19	DIODE 1SS119	
D853	8-719-911-19	DIODE 1SS119	
D891	8-719-110-49	DIODE RD18ESB2	
D892	8-719-110-49	DIODE RD18ESB2	
<IC>			
IC801	8-759-231-58	IC TA7812S	
IC802	8-759-103-93	IC UPC393C	
IC803	8-759-100-82	IC UPC4082C	
IC804	8-759-103-93	IC UPC393C	
IC805	8-759-100-75	IC UPC1394C	
<COIL>			
L801	1-459-862-11	COIL, CHOKE 90UH	
L802	1-424-603-11	COIL, CHOKE 1.05MMH	
L803	1-459-313-00	COIL WITH CORE (HWC)	
L804	1-410-482-31	INDUCTOR 100UH	
L805	1-424-603-11	COIL, CHOKE 1.05MMH	
<CONNECTOR>			
N-1	1-506-348-XX	PIN, CONNECTOR 3P	
N-2	*1-564-508-11	PLUG, CONNECTOR 5P	
N-3	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
N-4	*1-564-507-11	PLUG, CONNECTOR 4P	
N-5	*1-564-508-11	PLUG, CONNECTOR 5P	
N-6	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
N-7	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
N-8	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
N-9	1-506-348-XX	PIN, CONNECTOR 3P	
N-10	*1-564-511-11	PLUG, CONNECTOR 8P	
N-20	*1-560-126-00	PLUG, CONNECTOR (2.5MM) 6P	
N-21	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P	
N-30	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	

N

- The components identified by  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
N-851	*1-506-371-00	PIN, CONNECTOR 2P		R833	1-249-419-11	CARBON	1.5K 5% 1/4W
N-853	*1-506-371-00	PIN, CONNECTOR 2P		R834	1-249-419-11	CARBON	1.5K 5% 1/4W
				R835	1-215-429-00	METAL	2.2K 1% 1/4W
		<NEON LAMP>		R836	1-215-435-00	METAL	3.9K 1% 1/4W
NL801	1-519-108-XX	LAMP, NEON		R837	1-249-433-11	CARBON	22K 5% 1/4W
				R838	1-249-435-11	CARBON	33K 5% 1/4W
				R839	1-249-438-11	CARBON	56K 5% 1/4W
				R840	1-249-434-11	CARBON	27K 5% 1/4W
		<TRANSISTOR>		R841	1-249-429-11	CARBON	10K 5% 1/4W
Q801	8-729-201-61	TRANSISTOR 2SC2555-1		R842	1-249-435-11	CARBON	33K 5% 1/4W
	4-382-854-11	SCREW (M3X10), P, SW (+); Q801		R843	1-249-423-11	CARBON	3.3K 5% 1/4W
	4-383-023-01	SPACER, MICA; Q801		R844	1-249-433-11	CARBON	22K 5% 1/4W
Q802	8-729-119-80	TRANSISTOR 2SC2688-LK		R845	1-249-435-11	CARBON	33K 5% 1/4W
	4-039-042-01	SPACER, INSULATING; Q802					
	4-382-854-11	SCREW (M3X10), P, SW (+); Q802		R846	1-249-429-11	CARBON	10K 5% 1/4W
Q803	8-729-119-76	TRANSISTOR 2SA1175-HFE		R847	1-214-761-00	METAL	22K 1% 1/4W
Q804	8-729-119-78	TRANSISTOR 2SC2785-HFE		R848	1-215-429-00	METAL	2.2K 1% 1/4W
Q805	8-729-119-78	TRANSISTOR 2SC2785-HFE		R849	1-215-421-00	METAL	1K 1% 1/4W
Q806	8-729-119-80	TRANSISTOR 2SC2688-LK		R850	1-215-429-00	METAL	2.2K 1% 1/4W
Q807	8-729-119-78	TRANSISTOR 2SC2785-HFE		R851	1-215-404-00	METAL	200 1% 1/4W
Q808	8-729-119-78	TRANSISTOR 2SC2785-HFE		R852	1-215-469-00	METAL	100K 1% 1/4W
Q809	8-729-119-76	TRANSISTOR 2SA1175-HFE		R853	1-249-430-11	CARBON	12K 5% 1/4W
Q811	8-729-805-07	TRANSISTOR 2SB1887-C4		R855	1-215-469-00	METAL	100K 1% 1/4W
	4-382-854-11	SCREW (M3X10), P, SW (+); Q811					
Q812	8-729-804-48	TRANSISTOR 2SC3675-CB		R856	1-249-430-11	CARBON	12K 5% 1/4W
Q820	8-729-119-76	TRANSISTOR 2SA1175-HFE		R857	1-249-433-11	CARBON	22K 5% 1/4W
Q851	8-729-119-78	TRANSISTOR 2SC2785-HFE		R858	1-249-413-11	CARBON	470 5% 1/4W
Q852	8-729-119-78	TRANSISTOR 2SC2785-HFE		R859	1-249-435-11	CARBON	33K 5% 1/4W
Q853	8-729-820-98	TRANSISTOR 2SC4256CB		R860	1-249-441-11	CARBON	100K 5% 1/4W
		<RESISTOR>		R861	1-249-421-11	CARBON	2.2K 5% 1/4W
R801	1-215-378-01	METAL OXIDE	5.6 5% 2W F	R862	1-249-434-11	CARBON	27K 5% 1/4W
R802	1-215-926-01	METAL OXIDE	33K 5% 3W F	R863	1-249-431-11	CARBON	15K 5% 1/4W
R803	1-215-928-01	METAL OXIDE	33K 5% 3W F	R864	1-249-423-11	CARBON	3.3K 5% 1/4W
R804	1-249-429-11	CARBON	10K 5% 1/4W	R865	1-249-440-11	CARBON	82K 5% 1/4W
R805	1-249-423-11	CARBON	3.3K 5% 1/4W				
R806	1-249-425-11	CARBON	4.7K 5% 1/4W	R866	1-249-436-11	CARBON	39K 5% 1/4W
R807	1-249-441-11	CARBON	100K 5% 1/4W	R867	1-249-437-11	CARBON	47K 5% 1/4W
R808	1-249-417-11	CARBON	1K 5% 1/4W	R868	1-249-428-11	CARBON	8.2K 5% 1/4W
R809	1-249-417-11	CARBON	1K 5% 1/4W	R869	1-249-429-11	CARBON	10K 5% 1/4W
R810	1-249-441-11	CARBON	100K 5% 1/4W	R870	1-249-417-11	CARBON	1K 5% 1/4W
R811	1-249-421-11	CARBON	2.2K 5% 1/4W	R871	1-249-440-11	CARBON	82K 5% 1/4W
R812	1-249-420-11	CARBON	1.8K 5% 1/4W F	R872	1-249-423-11	CARBON	3.3K 5% 1/4W
R813	1-215-821-01	METAL OXIDE	4.7K 5% 3W F	R873	1-249-441-11	CARBON	100K 5% 1/4W
R814	1-249-409-11	CARBON	220 5% 1/4W	R874	1-249-435-11	CARBON	33K 5% 1/4W
R815	1-249-415-11	CARBON	680 5% 1/4W	R875	1-249-421-11	CARBON	2.2K 5% 1/4W
R816	1-214-777-00	METAL	100K 1% 1/4W	R876	1-215-426-00	METAL	1.6K 1% 1/4W
R817	1-215-471-00	METAL	120K 1% 1/4W	R877	1-249-435-11	CARBON	33K 5% 1/4W
R818	1-215-471-00	METAL	120K 1% 1/4W	R878	1-249-441-11	CARBON	100K 5% 1/4W
R819	1-215-450-00	METAL	16K 1% 1/4W	R879	1-215-489-01	METAL OXIDE	27K 5% 3W F
R820	1-215-451-00	METAL	18K 1% 1/4W	R880	1-249-429-11	CARBON	10K 5% 1/4W
R821	1-249-423-11	CARBON	3.3K 5% 1/4W	R881	1-214-761-00	METAL	22K 1% 1/4W
R822	1-249-433-11	CARBON	22K 5% 1/4W	R882	1-249-433-11	CARBON	22K 5% 1/4W
R823	1-249-429-11	CARBON	10K 5% 1/4W	R883	1-249-417-11	CARBON	1K 5% 1/4W
R824	1-215-469-00	METAL	100K 1% 1/4W	R884	1-215-894-01	METAL OXIDE	2.2K 5% 2W F
R825	1-215-453-00	METAL	22K 1% 1/4W	R885	1-249-438-11	CARBON	56K 5% 1/4W
R826	1-214-962-00	METAL	820K 1% 1/4W	R886	1-249-414-11	CARBON	560 5% 1/4W
R827	1-214-764-00	METAL	30K 1% 1/4W	R887	1-215-397-00	METAL	100 1% 1/4W
R828	1-215-455-00	METAL	27K 1% 1/4W	R888	1-249-410-11	CARBON	270 5% 1/4W
R829	1-215-455-00	METAL	27K 1% 1/4W	R889	1-249-417-11	CARBON	1K 5% 1/4W
R830	1-215-928-01	METAL OXIDE	68K 5% 3W F	R890	1-249-417-11	CARBON	1K 5% 1/4W
R831	1-215-928-01	METAL OXIDE	68K 5% 3W F	R891	1-215-489-01	METAL OXIDE	27K 5% 3W F
R832	1-249-417-11	CARBON	1K 5% 1/4W	R892	1-249-417-11	CARBON	1K 5% 1/4W F
				R893	1-215-453-00	METAL	22K 1% 1/4W
				R894	1-249-401-11	CARBON	47 5% 1/4W
				R895	1-202-731-00	SOLID	10M 20% 1/2W

The components identified by shading and mark Δ are critical for safety
Replace only with part number specified

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité
Ne les remplacer que par une pièce portant le numéro spécifié.

KP-46V15/46V16
KP-53V15/53V16/61V15
RM-Y115

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REF.NO.	PART NO.	DESCRIPTION	REMARK
R896	1-260-111-11	CARBON	10K 5% 1/2W
R897	1-247-881-00	CARBON	120K 5% 1/4W
R898	1-202-730-00	SOLID	8.2M 20% 1/2W
R899	1-249-429-11	CARBON	10K 5% 1/4W
R903	1-247-735-11	SOLID	47 20% 1/2W

R904	1-215-928-11	METAL OXIDE	68K 5% 3W F
R905	1-215-911-11	METAL OXIDE	100 5% 3W F

<SPARK GAP>

SG801 1-519-422-11 GAP, SPARK

<TRANSFORMER>

T801	1-437-078-11	TRANSFORMER, HORIZONTAL DRIVE
T802	1-437-090-00	HDT
T803	1-453-121-11	TRANSFORMER ASSY. FLYBACK (NR 2630B4)

*A-1394-420-A U BOARD, COMPLETE

<CAPACITOR>

C1004	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C1005	1-126-301-11	ELECT	1MF	20%	50V
C1006	1-164-096-11	CERAMIC	0.01MF		50V
C1007	1-124-598-11	ELECT	22MF	20%	25V
C1008	1-124-598-11	ELECT	22MF	20%	25V

C1010	1-124-465-00	ELECT	0.47MF	20%	50V
C1011	1-124-465-00	ELECT	0.47MF	20%	50V
C1012	1-124-465-00	ELECT	0.47MF	20%	50V
C1013	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C1014	1-126-163-11	ELECT	4.7MF	20%	50V

C1016	1-126-163-11	ELECT	4.7MF	20%	50V
C1018	1-126-301-11	ELECT	1MF	20%	50V
C1020	1-124-242-00	ELECT	33MF	20%	25V
C1021	1-124-465-00	ELECT	0.47MF	20%	50V
C1022	1-124-242-00	ELECT	33MF	20%	25V

C1026	1-102-949-00	CERAMIC	12PF	5%	50V
C1027	1-102-949-00	CERAMIC	12PF	5%	50V
C1028	1-124-242-00	ELECT	33MF	20%	25V
C1029	1-124-282-00	ELECT	22MF	20%	16V
C1030	1-124-478-11	ELECT	100MF	20%	25V

C1031	1-102-963-00	CERAMIC	33PF	5%	50V
C1033	1-124-598-11	ELECT	22MF	20%	25V
C1034	1-124-282-00	ELECT	22MF	20%	16V
C1036	1-124-282-00	ELECT	22MF	20%	16V
C1037	1-124-282-00	ELECT	22MF	20%	16V

C1039	1-124-478-11	ELECT	100MF	20%	25V
C1047	1-124-465-00	ELECT	0.47MF	20%	50V
C1048	1-126-301-11	ELECT	1MF	20%	50V
C1049	1-124-598-11	ELECT	22MF	20%	25V
C1051	1-124-465-00	ELECT	0.47MF	20%	50V

C1055	1-124-589-11	ELECT	47MF	20%	16V
C1056	1-124-499-11	ELECT	1MF	20%	50V
C1057	1-124-768-11	ELECT	4.7MF	20%	50V
C1059	1-124-499-11	ELECT	1MF	20%	50V
C1060	1-124-499-11	ELECT	1MF	20%	50V

C1061	1-124-499-11	ELECT	1MF	20%	50V
C1062	1-102-129-00	CERAMIC	0.01MF	10%	50V
C1063	1-124-768-11	ELECT	4.7MF	20%	50V
C1066	1-126-101-11	ELECT	100MF	20%	16V

REF.NO.	PART NO.	DESCRIPTION	REMARK
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<FILTER BLOCK>

CM1002 1-466-162-31 BLOCK, COM FILTER (CFB-4)

<DIODE>

D1005	8-719-110-36	DIODE	RD13ESB2
D1009	8-719-110-36	DIODE	RD13ESB2
D1010	8-719-110-36	DIODE	RD13ESB2
D1011	8-719-110-36	DIODE	RD13ESB2
D1012	8-719-110-36	DIODE	RD13ESB2

D1013	8-719-110-36	DIODE	RD13ESB2
D1017	8-719-110-36	DIODE	RD13ESB2
D1018	8-719-110-36	DIODE	RD13ESB2
D1019	8-719-110-36	DIODE	RD13ESB2
D1020	8-719-109-66	DIODE	RD3.3ESB2

D1021	8-719-109-66	DIODE	RD3.3ESB2
D1022	8-719-109-66	DIODE	RD3.3ESB2

<IC>

IC1002	8-752-056-50	IC	CXA1545S
IC1011	8-759-145-57	IC	UPC4557C

<COIL>

L1001	1-408-422-00	INDUCTOR	120UH
L1002	1-408-422-00	INDUCTOR	120UH

<TRANSISTOR>

Q1009	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q1010	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q1016	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q1017	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q1018	8-729-141-26	TRANSISTOR	2SC3622A-LK

Q1019	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q1020	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q1021	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q1022	8-729-141-26	TRANSISTOR	2SC3622A-LK
Q1023	8-729-119-78	TRANSISTOR	2SC2785-HFE

Q1029	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q1030	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q1031	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q1032	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q1033	8-729-119-76	TRANSISTOR	2SA1175-HFE

Q1034 8-729-119-76 TRANSISTOR 2SA1175-HFE

<RESISTOR>

R1011	1-249-435-11	CARBON	33K	5%	1/4W
R1012	1-249-434-11	CARBON	27K	5%	1/4W
R1013	1-249-417-11	CARBON	1K	5%	1/4W
R1014	1-249-441-11	CARBON	100K	5%	1/4W
R1015	1-249-425-11	CARBON	4.7K	5%	1/4W

R1016	1-249-441-11	CARBON	100K	5%	1/4W
R1017	1-249-405-11	CARBON	100	5%	1/4W
R1018	1-249-427-11	CARBON	6.8K	5%	1/4W
R1019	1-249-427-11	CARBON	6.8K	5%	1/4W
R1023	1-249-405-11	CARBON	100	5%	1/4W

R1026	1-249-425-11	CARBON	4.7K	5%	1/4W
R1028	1-249-434-11	CARBON	27K	5%	1/4W
R1029	1-249-435-11	CARBON	33K	5%	1/4W

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R1030	1-249-417-11	CARBON	1K 5% 1/4W	U-23	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)	
R1032	1-249-417-11	CARBON	1K 5% 1/4W	U-47	*1-564-506-11	PLUG, CONNECTOR 3P	
R1033	1-249-393-11	CARBON	10 5% 1/4W				
R1034	1-249-417-11	CARBON	1K 5% 1/4W				
R1036	1-247-883-00	CARBON	150K 5% 1/4W				
R1037	1-247-883-00	CARBON	150K 5% 1/4W				
R1038	1-247-883-00	CARBON	150K 5% 1/4W				
R1043	1-249-417-11	CARBON	1K 5% 1/4W				
R1046	1-249-413-11	CARBON	470 5% 1/4W				
R1048	1-249-405-11	CARBON	100 5% 1/4W				
R1050	1-249-405-11	CARBON	100 5% 1/4W				
R1051	1-249-417-11	CARBON	1K 5% 1/4W				
R1052	1-249-413-11	CARBON	470 5% 1/4W				
R1054	1-249-405-11	CARBON	100 5% 1/4W				
R1055	1-249-413-11	CARBON	470 5% 1/4W				
R1056	1-249-405-11	CARBON	100 5% 1/4W				
R1057	1-249-441-11	CARBON	100K 5% 1/4W				
R1059	1-249-405-11	CARBON	100 5% 1/4W				
R1061	1-249-409-11	CARBON	220 5% 1/4W				
R1062	1-249-441-11	CARBON	100K 5% 1/4W				
R1063	1-249-409-11	CARBON	220 5% 1/4W				
R1066	1-215-437-00	METAL	4.7K 1% 1/4W				
R1067	1-215-437-00	METAL	4.7K 1% 1/4W				
R1068	1-215-437-00	METAL	4.7K 1% 1/4W				
R1069	1-215-437-00	METAL	4.7K 1% 1/4W				
R1070	1-249-411-11	CARBON	330 5% 1/4W				
R1071	1-249-431-11	CARBON	15K 5% 1/4W				
R1073	1-249-431-11	CARBON	15K 5% 1/4W				
R1077	1-249-418-11	CARBON	1.2K 5% 1/4W				
R1078	1-249-418-11	CARBON	1.2K 5% 1/4W				
R1079	1-249-405-11	CARBON	100 5% 1/4W				
R1080	1-215-423-00	METAL	1.2K 1% 1/4W				
R1081	1-215-421-00	METAL	1K 1% 1/4W				
R1089	1-249-405-11	CARBON	100 5% 1/4W				
R1094	1-249-405-11	CARBON	100 5% 1/4W				
R1096	1-249-405-11	CARBON	100 5% 1/4W				
R1099	1-249-413-11	CARBON	470 5% 1/4W				
R1110	1-249-405-11	CARBON	100 5% 1/4W				
R1116	1-249-441-11	CARBON	100K 5% 1/4W				
R1118	1-249-413-11	CARBON	470 5% 1/4W				
R1120	1-249-413-11	CARBON	470 5% 1/4W				
R1121	1-249-441-11	CARBON	100K 5% 1/4W				
R1122	1-249-413-11	CARBON	470 5% 1/4W				
R1133	1-249-405-11	CARBON	100 5% 1/4W				
R1134	1-249-405-11	CARBON	100 5% 1/4W				
R1137	1-249-411-11	CARBON	330 5% 1/4W				
R1138	1-249-415-11	CARBON	680 5% 1/4W				
R1139	1-249-413-11	CARBON	470 5% 1/4W				
R1140	1-249-413-11	CARBON	470 5% 1/4W				
R1141	1-249-413-11	CARBON	470 5% 1/4W				
R1142	1-249-415-11	CARBON	680 5% 1/4W				
R1147	1-249-405-11	CARBON	100 5% 1/4W				
R1148	1-249-405-11	CARBON	100 5% 1/4W				
R1149	1-249-417-11	CARBON	1K 5% 1/4W				
R1150	1-249-405-11	CARBON	100 5% 1/4W				
R1151	1-249-405-11	CARBON	100 5% 1/4W				
R1152	1-249-417-11	CARBON	1K 5% 1/4W				
<CONNECTOR>				<CAPACITOR>			
U-12	1-573-300-11	CONNECTOR, BOARD TO BOARD 18P		C3403	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
U-13	1-573-300-11	CONNECTOR, BOARD TO BOARD 18P		C3408	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
U-16	*1-564-513-11	PLUG, CONNECTOR 10P		C3409	1-124-477-11	ELECT 47MF	20% 16V
U-22	1-566-942-11	CONNECTOR, HINGE (RECEPTACLE) 30P		C3411	1-124-034-51	ELECT 33MF	20% 16V
				C3442	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
				C3446	1-163-129-00	CERAMIC CHIP 330PF	5% 50V
				C3447	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
				C3448	1-163-023-00	CERAMIC CHIP 0.015MF	10% 50V
				C3449	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V
				C3450	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
				C3451	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C3452	1-163-989-11	CERAMIC CHIP 0.033MF	10% 25V
				C3453	1-124-477-11	ELECT 47MF	20% 16V
				C3454	1-126-162-11	ELECT 3.3MF	20% 50V
				C3455	1-126-163-11	ELECT 4.7MF	20% 16V
				C3456	1-163-129-00	CERAMIC CHIP 330PF	5% 50V
				C3457	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
				C3459	1-124-477-11	ELECT 47MF	20% 16V
				C3460	1-163-099-00	CERAMIC CHIP 18PF	5% 50V
				C3461	1-163-099-00	CERAMIC CHIP 18PF	5% 50V
				C3507	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
				C3508	1-164-005-11	CERAMIC CHIP 0.47MF	25V
				C3509	1-163-139-00	CERAMIC CHIP 820PF	5% 50V
				C3515	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
				C3540	1-126-157-11	ELECT 10MF	20% 16V
				<DIODE>			
				D3444	8-719-404-46	DIODE MA110	
				<IC>			
				IC3401	8-759-403-44	IC MN1280-S	
				IC3402	8-759-070-42	IC M37201M6-A18FP	
				IC3441	8-759-081-30	IC MC78L05ACPRP	
				IC3442	8-759-084-12	IC LA7945	
				IC3443	8-759-158-03	IC LC7458A-02	
				IC3444	8-759-403-44	IC MN1280-S	
				<COIL>			
				L3401	1-408-421-00	INDUCTOR 100UH	
				L3461	1-408-409-00	INDUCTOR 10UH	
				L3462	1-408-421-00	INDUCTOR 100UH	
				<TRANSISTOR>			
				Q3441	8-729-422-27	TRANSISTOR 2SD601A-Q	
				Q3444	8-729-903-10	TRANSISTOR FMW1	

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
REF.NO.	PART NO.	DESCRIPTION	REMARK
<RESISTOR>			
R3401	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R3402	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R3403	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R3404	1-216-033-00	METAL GLAZE 220 5%	1/10W
R3405	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R3406	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R3407	1-216-033-00	METAL GLAZE 220 5%	1/10W
R3408	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R3409	1-216-033-00	METAL GLAZE 220 5%	1/10W
R3441	1-216-025-00	METAL GLAZE 100 5%	1/10W
R3442	1-216-041-00	METAL GLAZE 470 5%	1/10W
R3443	1-216-041-00	METAL GLAZE 470 5%	1/10W
R3444	1-216-077-00	METAL GLAZE 15K 5%	1/10W
R3445	1-216-689-11	METAL GLAZE 39K 5%	1/10W
R3446	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R3449	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R3450	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R3451	1-216-093-00	METAL GLAZE 68K 5%	1/10W
R3452	1-216-079-00	METAL GLAZE 18K 5%	1/10W
R3453	1-216-679-11	METAL CHIP 15K 0.50%	1/10W
R3454	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R3455	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R3456	1-216-077-00	METAL GLAZE 15K 5%	1/10W
R3463	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R3464	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R3465	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R3472	1-216-091-00	METAL GLAZE 56K 5%	1/10W
R3473	1-216-025-00	METAL GLAZE 100 5%	1/10W
R3474	1-216-295-00	METAL GLAZE 0 5%	1/10W
R3504	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R3509	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R3511	1-216-025-00	METAL GLAZE 100 5%	1/10W
R3512	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
R3513	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
R3514	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
R3519	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R3520	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R3521	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R3525	1-216-295-00	METAL GLAZE 0 5%	1/10W
R3526	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R3528	1-216-295-00	METAL GLAZE 0 5%	1/10W
R3529	1-216-295-00	METAL GLAZE 0 5%	1/10W
R3530	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R3531	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R3532	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R3535	1-216-033-00	METAL GLAZE 220 5%	1/10W
R3537	1-216-295-00	METAL GLAZE 0 5%	1/10W
R3540	1-216-073-00	METAL GLAZE 10K 5%	1/10W
<CONNECTOR>			
S-42	*1-568-378-21	PIN, CONNECTOR 3P	
S-43	*1-564-508-11	PLUG, CONNECTOR 5P	
S-45	*1-564-511-71	PLUG, CONNECTOR 8P	
S-47	*1-564-506-11	PLUG, CONNECTOR 3P	
S-46	*1-564-506-11	PLUG, CONNECTOR 3P	
<CRYSTAL>			
X3401	1-577-358-21	VIBRATOR, CERAMIC	
X3441	1-577-364-11	VIBRATOR, CERAMIC	


REF.NO.	PART NO.	DESCRIPTION	REMARK
*A-1394-432-A UT BOARD, COMPLETE			

<CAPACITOR>			
C1152	1-102-074-00	CERAMIC 0.001MF	10% 50V
C1154	1-164-096-11	CERAMIC 0.01MF	50V
C1155	1-126-103-11	ELECT 470MF	20% 16V
C1158	1-124-598-11	ELECT 22MF	20% 25V
C1160	1-124-598-11	ELECT 22MF	20% 25V
C1161	1-124-598-11	ELECT 22MF	20% 25V
C1164	1-126-103-11	ELECT 470MF	20% 16V
C1165	1-126-301-11	ELECT 1MF	20% 50V
C1166	1-126-301-11	ELECT 1MF	20% 50V
C1167	1-126-301-11	ELECT 1MF	20% 50V
C1168	1-126-301-11	ELECT 1MF	20% 50V
C1199	1-102-129-00	CERAMIC 0.01MF	10% 50V
C1200	1-102-129-00	CERAMIC 0.01MF	10% 50V
<DIODE>			
D1152	8-719-110-36	DIODE RD13ESB2	
D1158	8-719-110-36	DIODE RD13ESB2	
D1159	8-719-110-36	DIODE RD13ESB2	
D1160	8-719-110-36	DIODE RD13ESB2	
D1163	8-719-110-36	DIODE RD13ESB2	
D1164	8-719-110-36	DIODE RD13ESB2	
D1165	8-719-110-36	DIODE RD13ESB2	
D1166	8-719-110-36	DIODE RD13ESB2	
D1167	8-719-110-36	DIODE RD13ESB2	
D1168	8-719-110-36	DIODE RD13ESB2	
D1169	8-719-110-36	DIODE RD13ESB2	
D1170	8-719-110-36	DIODE RD13ESB2	
<JACK>			
J1001	1-537-187-11	TERMINAL, PUSH (4P)	
J1003	1-573-970-11	BLOCK, (S) TERMINAL	
J1004	1-695-049-11	BLOCK, (S) TERMINAL	
J1005	1-695-054-11	JACK BLOCK, PIN	
J1006	1-573-970-11	BLOCK, (S) TERMINAL	
J1007	1-573-969-11	JACK BLOCK, PIN	
J1008	1-573-969-11	JACK BLOCK, PIN	
<RESISTOR>			
R1153	1-249-403-11	CARBON 68 5%	1/4W
R1164	1-247-895-00	CARBON 470K 5%	1/4W
R1165	1-247-895-00	CARBON 470K 5%	1/4W
R1166	1-247-895-00	CARBON 470K 5%	1/4W
R1167	1-247-895-00	CARBON 470K 5%	1/4W
R1168	1-247-895-00	CARBON 470K 5%	1/4W
R1169	1-249-403-11	CARBON 68 5%	1/4W
R1170	1-249-403-11	CARBON 68 5%	1/4W
R1171	1-247-895-00	CARBON 470K 5%	1/4W
R1172	1-247-895-00	CARBON 470K 5%	1/4W
R1173	1-247-804-11	CARBON 75 5%	1/4W
R1174	1-247-895-00	CARBON 470K 5%	1/4W
R1175	1-247-895-00	CARBON 470K 5%	1/4W
R1176	1-247-804-11	CARBON 75 5%	1/4W
R1178	1-247-895-00	CARBON 470K 5%	1/4W
R1179	1-247-895-00	CARBON 470K 5%	1/4W
R1180	1-247-804-11	CARBON 75 5%	1/4W
R1181	1-247-804-11	CARBON 75 5%	1/4W
R1183	1-247-895-00	CARBON 470K 5%	1/4W

UT

- The components identified by  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

Les composants identifiés par une trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK
R1184	1-247-895-00	CARBON 470K 5% 1/4W	
R1185	1-247-895-00	CARBON 470K 5% 1/4W	
R1186	1-247-895-00	CARBON 470K 5% 1/4W	
R1188	1-247-804-11	CARBON 75 5% 1/4W	
R1191	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1192	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1193	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1194	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1196	1-249-429-11	CARBON 10K 5% 1/4W	

<SWITCH>

S1150 1-572-198-11 SWITCH, KEYBOARD

<CONNECTOR>

UT11 *1-564-519-11 PLUG, CONNECTOR 4P
UT22 *1-566-941-11 CONNECTOR, HINGE (TAB) 30P
UT23 *1-566-641-11 CONNECTOR, HINGE (TAB) 18P
UT35 *1-564-518-11 PLUG, CONNECTOR 3P

MISCELLANEOUS

A.1-241-744-11 RESISTOR ASSY (HIGH-VOLTAGE)
1-417-178-11 SELECTOR, ANTENNA (AS-2)
A.1-451-396-21 DEFLECTION YOKE (Y936FA)
A.1-452-443-13 NECK ASSY, PICTURE TUBE (NA367)
A.1-453-108-11 DC BLOCK, HIGH-VOLTAGE

1-544-768-11 SPEAKER (13CM) (COAXIAL)
*1-555-400-00 CABLE, PIN
*1-557-056-31 CABLE, P-P
1-559-865-41 LEAD ASSY, HIGH-VOLTAGE
1-574-590-31 LEAD ASSY, HIGH-VOLTAGE
(KP-46V15(US/CND)/46V16/53V15/53V16)

A.1-696-002-12 COIL, POWER(WITH NOISE FILTER)
A.1-690-001-11 RES, METAL FILM 1/4W
A.1-690-001-11 RES, METAL FILM 1/4W
A.1-690-002-12 RES, METAL FILM 1/4W

V901 A.8-736-633-05 PICTURE TUBE 07MK(B) (SD-249)
(KP-46V15(US/CND)/46V16/53V15/53V16)
A.8-736-641-05 PICTURE TUBE 07MK2(B) (SD-249)
(KP-61V15(US/CND))

V902 A.8-736-631-05 PICTURE TUBE 07MK(G) (SD-249)
(KP-46V15(US/CND)/46V16/53V15/53V16)
A.8-736-634-05 PICTURE TUBE 07MK3(G) (SD-249)
(KP-61V15(US/CND))

V903 A.8-736-632-05 PICTURE TUBE 07MK(B) (SD-249)
(KP-46V15(US/CND)/46V16/53V15/53V16)
A.8-736-640-05 PICTURE TUBE 07MK2(B) (SD-249)
(KP-61V15(US/CND))

ACCESSORIES AND PACKING MATERIALS

*3-704-356-01 SHEET (STANDARD), PROTECTION
(KP-46V15(US/CND))
3-756-987-21 MANUAL, INSTRUCTION (ENGLISH)
3-756-987-31 MANUAL, INSTRUCTION (FRENCH)
(KP-46V15(CND)/61V15(CND))
3-756-987-41 MANUAL, INSTRUCTION (SPANISH)
(KP-46V15(US)/46V16/53V15/53V16/61V15(US))
*4-030-895-01 JOINT

REF. NO.	PART NO.	DESCRIPTION	REMARK
*4-037-126-01		INDIVIDUAL CARTON (KP-46V15(US/CND)/46V16)	
*4-037-127-01		TRAY (KP-46V15(US/CND)/46V16)	
*4-037-128-01		CUSHION (UPPER) (ASSY) (KP-46V15(US/CND)/46V16)	
*4-037-129-01		CUSHION (LOWER) (ASSY) (KP-46V15(US/CND)/46V16)	
*4-037-165-01		INDIVIDUAL CARTON (KP-53V15/53V16)	
*4-037-166-01		TRAY (KP-53V15/53V16)	
*4-037-167-01		CUSHION (UPPER) (ASSY) (KP-53V15/53V16)	
*4-037-168-01		CUSHION (LOWER) (ASSY) (KP-53V15/53V16)	
*4-037-328-01		PLATE, TOP (KP-53V15/53V16)	
*4-037-674-01		PLATE, TOP (KP-46V15(US/CND)/46V16)	
*4-037-918-01		PLATE, BOTTOM (KP-46V15(US/CND)/46V16)	
*4-038-043-01		PLATE, BOTTOM (KP-53V15/53V16)	
*4-388-954-01		BAG, PROTECTION (KP-53V15/53V16)	
*4-395-902-01		BAG, PROTECTION (KP-46V15(US/CND)/46V16)	
*4-040-108-01		CUSHION (UPPER) (ASSY) (KP-61V15(US/CND))	
*4-040-109-01		CUSHION (LOWER) (ASSY) (KP-61V15(US/CND))	
*4-040-110-01		TRAY (KP-61V15(US/CND))	
*4-040-111-01		PLATE, TOP (KP-61V15(US/CND))	
*4-040-112-01		PLATE, BOTTOM (KP-61V15(US/CND))	
*4-040-117-01		INDIVIDUAL CARTON (KP-61V15(US/CND))	
*4-040-535-01		BAG, POLYETHYLENE (KP-61V15(US/CND))	

REMOTE COMMANDER

1-467-125-11 REMOTE COMMANDER (RM-Y115)
9-902-719-01 COVER (FOR RM-Y115)
9-998-214-01 COVER, BATTERY (FOR RM-Y115)